An Argus Specialist Publication MARCH 20-25, 1984 Spectrum-

and ZX81 software from



in our free £1000 competition

Software reviews for: Commodore 64, Spectrum, BBC, VIC-20, Texas, Atari, Dragon and Oric

Three great Oric games to type in

Two Spectrum programs to play

programs to ype in for VIC-20, Commodore 64 and Atari

charts, news, your letters





Software

Imagine has caused twin stirs in the software industry - first by slashing prices and now raising them.

All its present games, including best sellers like Zzoom, Stonkers and Wacky Waiters, come down in price by £1.55 to £3.95 from Monday.

Imagine's next two arcadestyle games, Cosmic Cruiser and BC Bill, will also retail at £3.95.

But future releases will cost more than £15.

Imagine operations director Bruce Everiss said: They are going to be expensive and worth it. We know what the kids want. They buy Valhalla don't they?"

The first two at the new higher prices will be called Continued on page 5

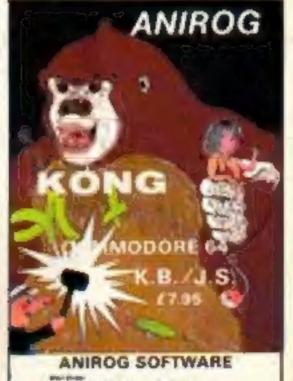
Nine tracks for speed

Disc speed for half the price is claimed for a new data storage system using cartridges with 12ft loops of tape.

Called Phloopy, it is designed to appeal to home computer users who cannot afford disc systems.

Mike Lucas, managing director of makers Phi Mag Systems, said: "There is such a huge gap between the slow speed tape recorders and the £300 or £400 you would have to

Continued on page 5



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Briefly

Atari-style joysticks can be used on the Electron with a new plag-in interface cartridge from FBC Systems. It costs £24.95 and the company says it has been talking to software houses about compatible software.

FBC Systems, 10 Main Centre,

Derby DE! 2PE

Sir Clive Sinclair has signed a deal allowing assembly and distribution of Spectrums and ZX81s in South Korea. Sinclair Research will supply components to Samsung Electronics and the first products are expected on sale later this year.

Sinclair Research, Camberley, Surrey

Aquarius User is a new monthly magazine for owners of the £50 micro, edited by the ex-editor of Which Micro? Colin Barker. Subscription is £12 a year and the publishers plan to encourage newsagent sale as well.

Aquarius User, Computer Marketplace, 20 Orange St, London WC2H 7ED

Acorn has bought 100 pages on Micronet 800 to provide subscribers with information on its products, prices and personnel.

Micronet 800, Telemap, 155 Farringdon Rd, London EC1R 3AD

Four eductional games in five European languages are on a new program marketed by Soft-Shop for the Commodore 64, 48K Spectrum and Oric/Atmos. Four Games for Children covers addition, subtraction, spelling numbers and the alphabet and costs £9.95. SoftShop International, Unit 301, 16 Brune St, London El 7NJ

Your Commodore 64 can hold a conversation and even write programs for you, according to Sunshine, which has just published Artificial Intelligence on the Commodore 64. The book costs £6.95 and was written by father-and-son team Keith and Steven Brain.

Sunshine, 12/13 Little Newport St, London WC2R 3LD

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Find the words and you could win a share of £1,000-worth of great Silversoft games in this week's competition.









Programs for all these computers are in this week's issue.

The Quill is a major new utility written in machine code which allows even the novice programmer to produce high-speed machine code adventures of superior quality to many available at the moment without any knowledge of machine code whatsoever.

Using a menu selection system you may create well over 200 locations, describe them and connect routes between them. You may then fill them with objects and problems of your choice. Having tested your adventure you may alter and experiment with any section with the greatest of ease A part formed adventure may be saved to tape for later completion. When you have done so The Quill will allow you to produce a copy of your adventure which will run independently of the main Quill editor, so that you may give copies away to your friends. The Quill is provided with a detailed tutorial manual which covers every aspect of its use in writing adventures.

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NEWS

Price rise

From front page

Bandersnatch and Cyclapse, for the Spectrum and the Commodore 64.

Although still on cassette, they will be boxed along with other items, like maps and detailed playing instructions.

Mr Everiss said Imagine believed software sold as cassettes alone had reached its limit and more now had to be offered to customers.

A by-product is that piracy would be less likely because the other items in the boxes would be essential to use the games.

Mr Everiss said Imagine had also developed a system making its products nearly impossible to copy.

He agreed that the price cuts were to clear the decks and said that, at £3.95, the software was a bargain.

The company did not know exactly how much the future releases - due out in about three months - would cost, but it was spending £50,000 on marketing.

Virgin Games boss Nick Alexander, who is also chairman of the Guild of Software Houses, said when he heard the news: "I don't understand at all. What's the logic behind that?

"I'm totally amused and bemused by Imagine's twisting and turning. First they drop their prices and the next minute they are making them too high.

"While I applaud their move away from lower prices, I think they have over-reacted in the opposite direction. They will find it very hard, no matter what the extras, to sell games at £15."

Rod Cousens, managing director of Quicksilva, said his company did not plan to move from its pricing policy which puts a Spectrum game at £6.95.

The exceptions would be programs like its Games Designer and Ultisynth, a synthesiser for the Commodore 64.

Bob Simpson, head of PCS Distribution, believes the prices will be about £15.50 and £19.50. He said: "Imagine are claiming these programs are completely innovative. If that's the case it's marvellous and good for the industry."

He said they would have to offer at least the value of the packs from Phoenix Software. where an arcade game and an adventure are boxed in a videosized case for £9.95.

Liverpool L1 6BW



Cut-away view of the Phloopy system shows the 12ft tape loop and, at rear, the error-checking processor.

systems,"

interface, which runs up to eight drives, is £29.90. Tape cartridges cost £3-£3.50 depending on quantity.

says Phi Mag, and accessed in three to four seconds. Transfer rate is 10K per second, around 200 times faster than cassettes.

At present the system works only on the BBC computer, but Phi Mag plans to make it available for other popular home micros.

Phi Mag says the speed and reliability are due to a ninetrack recording head recording one byte across the quarter-inch width of the tape and an error-checking system controlled by an on-board processor.

Phloopy has its own Loop Filing System, using the standard BBC filing system, BASIC commands and its own commands, prefixed by an asterisk.

The continuous loop of tape is driven at 15 inches per second and, says Phi Mag, touches the cartridge wall only occasionally, so tape lubricant is not needed.

Programs or text files from cassette can be transferred.

Mr Lucas said his company was talking to software companies about supplying software on the new cartridges.

Fitting the system means inserting plugs into two other sockets and cutting two resistors.

Once installed, the Phloopy system plugs into the BBC's disc port and a second plug goes into the power output socket.

Phi Mag says the installation should not take more than 20 minutes.

The company says that, with production under way at its Falmouth plant, mail order sales will start within two months.

Phi Mag Systems, Tregoniggie Imagine, 5 Sir Thomas St, Industrial Estate, Falmouth, Cornwall TR11 4RY

You could be on our pages

We welcome programs, articles and tips from our readers.

PROGRAMS must always be sent on cassette. Listings are helpful, but not necessary. Check carefully that they are bug-free. Include details of what your program does, how it works, variables you have used and hints on conversion.

ARTICLES on using home computers should be no longer than 2,000 words. Don't worry about your writing ability - just try to keep to the style in HCW. Articles most likely to be published will help our readers made better use of their micros by giving useful ideas, possibly with programming examples. We will convert any sketched illustrations into finished artwork.

TIPS are short articles, and brief programming routines which we can put together with others. Your hints can aid other computer users.

Competitive rates are paid.

Keep a copy of your submissions and include an SAE if you want them returned. Label everything clearly and give a daytime and home phone number if you can.

Paul Liptrot, Home Computing Weekly, No.1 Golden Square, London W1R 3AB

Colour coded

Jet Set Willy, Matthew Smith's follow-up to the chart-topping Manic Miner, runs only when a colour code, found on the inlay card, is input by the player.

Software Projects says this is a bid to lessen piracy. Jet Set Willy, which has a competition detailed on the inlay, was originally due out in December.

It runs on the 48K Spectrum along with the company's other new games, Tribble Trouble and Orion. Dinky Doo, new for the Commodore 64, plays a tune while loading.

Software Projects, Bear Brand Complex, Allerton Rd, Woolton, Liverpool L25 7SF

The inaugural meeting of the Society of Software Authors, affiliated to the Computer Trade Association, will be held at the Studio Theatre, Kenneth More Theatre, Oakfield Rd, Ilford, Essex, on May 5, starting at 1pm. Subscription: £10 per year.

Dorene Cox, acting treasurer, Society of Software Authors, 7 Meadway Ct, Whalebone Lane South, Dagenham, Essex

Turbo, an extended BASIC for the Commodore 64 at £14.95, is said to offer 45 instructions to make the computer easier to

Aztec, 18 Gregory Springs La, Mirfield, W. Yorks WF14 8LE

Logo, the educational programming language, has been brought out for the Spectrum by Kuma and for the Atari. The Spectrum version is on tape for £9.95 and Atari's is on cartridge at £59.99, including two 200-page manuals.

Kuma, Unit 12, Horseshoe Pk, Horseshoe Rd, Pangbourne, Berks RG8 7JW.

Atari, Railway Terr, Slough, Berks SL2 5BZ Longmans is adding two books to its series on using home computers: The BBC Micro Guide and, due out in three weeks, The Electron Micro Guide. Both are by Grahame Blackwell, director of the Ivybridge Educational Computing Project, South Devon, and cost £2.95.

Longman, Burnt Mill, Harlow, Essex CM20 2JE

Kenilworth Software is planning to bring out a magazine on tape for users of the TI-99/4A in May/June.

Kenilworth Software, 9 Dencer Dr, Knights Meadow, Kenilworth, Warks CV8 2QR

Forthcoming shows: Microfair, April 28, Alexandra Palace, North London; 5th Annual Commodore Computer Show, June 7-9, Novotel London (formerly Cunard International Hotel), Hammersmith; Personal Computer Games Easter Show, April 20-22, Solihull Conference Centre, Homer Rd, Solihull; What Micro? Dr Barnardos Show, July 14-15, Battersea Pk, London.

Virgin Games' Nick Alexander has just returned from Hungary where he had talks with Andromeda, the software house that produced Chinese Juggler, about importing new games.

Virgin, 61-63 Portobello Rd, London W11 3DD

After the game of the book, the book of the game of the book. Melbourne House has brought our A Guide to Playing The Hobbit. Priced at £3.95, it outlines strategies and tactics and some, but not all, solutions. Melbourne House also publishes the game tape for the 48K Spectrum, Commodore 64, Oric and BBC.

Melbourne House, Castle Yard House, Castle Yard, Richmond, Surrey TW10 6TF

Get it right, Sir Clive

Every two years or so that special time comes round again when — in classic Sinclair style — Sir Clive and his crew unleash their latest and greatest home computer.

Waiting for it is a mob of anticipating and impatient computer freaks like me who will buy anything with the wonderfuly angular Sinclair logo on the side.

Will the QL meet our expectations? Perhaps.

It certainly sounds good, but so do a lot of other things when we first read about them in the hastilywritten and hazy first impression reports. The reviews rave about a computer that nobody, including the writer, knows a lot about.

There are mysterious and conflicting reports of chip names, memory capacity and cost until, finally, the official literature arrives. Happy would-be customers tear open the envelopes and scratch their heads in confusion when they find, for example, that it costs £100 more than they had heard.

Thankfully, that initial period is over for the QL and the solid facts have settled down to a basic list. And a very good list it is too: 128K RAM (96 usable after 32K for screen display is subtracted), eight colours, several text and graphics modes, twin built-in Microdrives, lots of interfaces, a seemingly excellent BASIC controlled by a Rolls-Royce of processors, an interesting shape and a big expansion programme.

And it's cheap. Or rather, for argument's sake, it's inexpensive. It really is a lot less than it should be.

The catch? there doesn't appear to be one. But perhaps everyone is looking in the wrong direction for the fatal error. If anything does eventually, or initially, go wrong it won't be the computer. Odds on it will be the company.

For too long we have let it all go by with computer companies: the production problems, recalls, apologies, re-delivery, the months of waiting. If our friend Sir Clive is reading I hope he bows his head in shame.

I'm ashamed to say that I have had two ZX81s and three of the 16K RAM packs for it, finally giving up after the third packed up. This time round I've really done myself proud, not stopping at three Spectrums. Oh no, I've had eight. No, this is not a typing error — I said eight. I wonder how many QLs I'll get.

Now, patience is one of my better virtues and I know that things like this must happen all the time. But it had better not happen again. I want to have faith in your company, Sir Clive, but you have let me down in the past. Your last chance will arrive soon when I order my QL. Be warned: there are others like me and it's a dangerous cutthroat market.

Please get it right.

John Kilby Luton

This space is for you to sound off about the micro scene, to present bouquets, to huri brickbats, or just to share your opinions or experiences. Contributions from individuals earn a fee. Send your views to Paul Liptrot, Editor, Home Computing Weekly, No. 1 Golden Square, London W1R 3AB

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Two great games for the unexpanded TI-99/4A

A great new flight simulation game for one player. Options for take-off, landing or in flight. Graphics display of landing strip, terrain map, instrument panel. Full instructions included. Graphics and sound.

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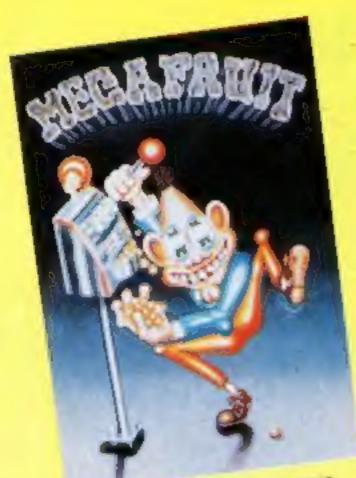


APEX SOFTWARE
Hastings Road, St. Leonards-on-Sea,

E. Sussex TN38 8EA
Tel. Hastings (0424) 53283



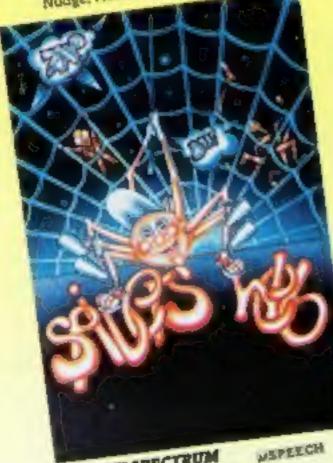
NEW FROM THE GODS



FOR ANY SPECTRUM

MEMPLECH

Mega Prest by Bob Hitching This is the ulumate fruit machine, with all the features of the real Arcade machines, such as Nudge, Hold, Gamble etc.



FOR ANY SPECTRUM

Spiders Web by Peter Milne Micky is a greedy little spider. He waps lots of Files and Wasps on his web and then stores them to eat later but it's tough for Micky, as the Flies bite back





FOR THE UNIXPANDED VIC IN and the CBM 64

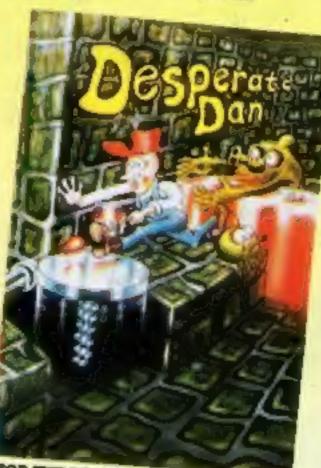
3D Stilicon Pish by Chris Stamp

Sillo has to collect Silicon and return to Earth before the Krilyon destroys him. Will he make it and collect his reward? Only you can tell.





Pyramid Painter by Chas Smith Can you help Bert the painter finish off the pyramids before the balls or Thin Man



POR THE BBC TO

Desperate Dan by Reiner Bjerkell

Deep down in Dan's dungeon are the ghastly monsters, he keeps them at bay with liquid dartanium. This liquid is very sweet and is liked by several rodents. Dan is desperate for help to keep the creatures at bay. Can you help?

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COMPETITION

Silversoft is one of our longest established software houses — and its range of best-sellers proves it.

Now you have the chance to win a prize package of Silversoft games for your Spectrum or ZX81.

Each of our 84 winners will receive software worth about £12. That's two cassettes for the Spectrum or three for the ZX81.

Your prizes will be selected from the Silversoft range by joint owners Dougle Bern and André Posumentov.

All you have to do is to find the Silversoft titles in our word square.

If you're a winner with either model of the Spectrum your prizes will be drawn from this list:

Zorbiter Muncher Slippery Sid Exterminator Mission Impossible Ground Attack Cyber-Rats Brain Damage Armageddon

And if you have the 48K Spectrum these titles could be yours too:

Starship Enterprise Freez Bees

Sam Spade Robot Riot

Winners with a ZX81 plus 16K RAM pack will each receive three of the following:

Invaders Muncher Asteroids Allen Dropout

When the entries are judged no distinction will be made between owners of either computer.

Entries close at first post on Friday April 6.

How to enter

Examine the word square carefully and try to find all the Silversoft software titles all of them, plus more, are in the two lists from Spectrum
and ZX81
users: win
great
games from
SSET

which most of the prizes will be selected.

Mark the titles you find by ringing them with a ballpoint pen or marking them with a semi-opaque felt-tip pen.

Complete the coupon fully and clearly — if you are a winner it will be used as a label — and send the word square with the coupon to us.

You must mark on the back of the envelope the number of software titles you found.

Make sure you write both the model of your computer and its memory, including RAM pack, on the coupon.

Please do not include anything else in the envelope.

You may enter as many times as you wish provided each entry is on the official coupon and word square and in a separate envelope. Incomplete entries cannot be considered.

Closing date is Friday April 6 at

first post.

The senders of the first 84 entries opened at random, regardless of computer owned, will win the prizes.

The prizes will arrive from Silversoft within 28 days of the publication of the issue containing the names of the winners and the solution.

The rules

The closing date is first post on Friday April 6, 1984 and the prizes will be allocated according to the How to enter section.

Entries which do not follow the guidance given cannot be considered.

Entries will not be accepted from employees of Argus Specialist Publications, Silversoft and Alabaster Passmore & Sons. This restriction also applies to employees' families and agents of the companies.

The editor's decision is final and no correspondence will be entered into.

Silversoft

Entry Coupon

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dates	
post code	
iumber of titles found	

Complete clearly and fully — If you are a prizewinner this will act as a label. Post to Silversoft Competition, Home Computing Weekly, No. I Golden Square, London WIR JAB. Closing date first post, Friday April 6. Follow carefully the How to Enter section, including writing the number of titles found on the back of your envelope.

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B Q O C X D B J F U Y T Z Z T H

Z U S L I P P E R Y S I D W G V

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W B X E V E H X B V M R A Z F T

A A L I E N D R O P O U T C X W

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T Z O R B I T E R T P L D R R T

E Y F H T G K E I N V A D E R S

R I A S F R H J O D O B Q E M R

O Z J O E C C K T I N N I Z J W

I K I F N B K J L R P E O B Q S

D P B U H S K I N L F F K E T S

S A M S P A D E E M G O L E P Q

O J G C H M O D G H M V U S C R





VIC-20 PROGRAMS

Collect the rubbish... and sounds Sound effects

Bugs

You take on the rôle of chief garbage collector for the central processing unit.

The object is to rid the CPU of all the rubbish while at the same time avoiding the "program pulses" that are scattered all around you.

Apart from the program pulses, you also have to watch out for the slippery floor because as soon as you start moving it is impossible to stop, except by clinging to the walls of the CPU.

This game requires a joystick and runs on the unexpanded

make

A great game and a collection of useful sound routines, both book, Winning Games on the V(C-20, just published by Ellis Morwood

VIC-20 900 REM HOW VERSION WITH REMS 999 REM [CLR] 1000 PRINT"3" POKE36879.8 1805 REM [GRN][CRSR DOWN][3*CRSR RIGHT][VEL][GRN] 1010 PRINT"(00000)>>>> ABUGS (D>>>>)" 1020 P=PEEK(52)-2:POKE52.P:POKE56.P CLR:FORI=7168T07679 POKE1.PEEK(1+25600):NEX 1030 POKE36869,255 1035 REM [YEL] 1040 A=0:FORJ=828T0912:READX:POKEJ.X:A=A+X:NEXT:READX:IFA<>XTHENPRINT"RDATA ERR 1050 FORC=7432T07527 READA POKEC, A NEXT 1055 REM [WHT][CRSR DOWN][2*CRSR RIGHT][CRSR DOWN] 1060 PRINT " WORDLINSTRUCTIONS... Y+NM" 1070 GETA#:IFR#<>"Y"AHDA#<>"H"THEN1070 1080 IFA4="N"THEN1130 1085 REM [YEL][2#CRSR UP] 1898 PRINT"MITYOU ARE CHIEF GARBAGE COLLECTOR ... 1095 REM [CRSR DOWN][CYN] 1100 PRINT MAND YOUR JOB IS TO GETRID OF ALL THE GARBAGEMHICH LOOK LIKE-LAWA" 1105 REM [CRSR DOWN][YEL][5*CRSR RIGHT][WHT] 1110 PRINT" MUBBUT AVOID PROGRAM DODD PULSES WHICH LOOK LIKETHIS-#+++ 1115 REM CORSE DOWNJEYELJC2*CRSR RIGHTJCCRSR DOWNJOHNTJCCRSR DOWNJ 1120 PRINT"MAIF YOU HIT ANY FULSEMMORE THAN 5 TIMES.... MAINSTANT PROGRAM CRAS 1130 REM ---START----1140 PRINT"PRESS ANY KEY TO PLAY"; 1150 POKE646, INT(RND(1)*8) 1155 REM ECRSR UP) 1160 GETA\$ IFA\$=""THEMPRINT"" GOTO1140 1165 REMECLRI 1170 SYS828 PRINT"." 1180 REM --- VARIABLES-1190 A=PEEK(36866)AND128|SC=4#A+64#(PEEK(36869)AND112)|C=30720 1200 S1=36876: S2=S1+1:V=S2+1:M=SC+252:Y=0 1210 SE=0 1220 REM-SET-UP-SCREEN-1230 FORT=1T050 GA=SC+INT(RND(1)#438+67) IFPEEK(GA)(>32THENT=T~1 1240 POKEGR+C, 3 POKEGR, 42 NEXT

Here are some special effects which you might care to use in your own programs.

We have put them all together into one demonstration program, which runs on the VIC-20 with 3K of extra RAM.

If you have a 16K RAM pack, the following commands entered in direct mode immediately after power up will set up the VIC to RUN a program designed for a VIC or a VIC plus 3K:

POKE8192,0:POKE44,: NEW POKE36866,150: POKE36869,240: POKE48,30

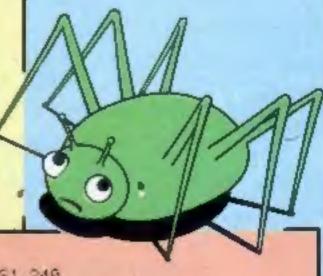
Clear the screen and you are almost ready to go, only one last hurdle remains. The program which you want to run may have a line like this in it:

POKE56,28:POKE52,28: CLR

This line is used to lower the top of memory to protect some area of RAM from being overwritten.

With a 16K RAM pack, if you used the above POKEs, you don't need to lower the top of memory - so delete the line from the program. Otherwise you will get an OUT OF MEMORY error as soon as you try to RUN.

Winning Games on the VIC-20, £5.95, is published by Ellis Horwood and distributed by John Wiley & Sons, of Chichester. A tape of all the programs in the book is £9.95 and book and tape together cost £11.95.



1396 ONYGOSUB1536 1556 1576 1596

1400 IFPEEK(M)=42THENSE=SE+10 GOSUB1480 FOKES1,240

1410 IFPEEK (MD=43THENPOKEOP+C, 1 POKEOP, 43 GOSUB1460 CR=CR+1 IFCR=5THEN1610

1428 IFRND(1)). STHENCO=5 CH=44 FR=168

1430 OP=M POKEM+C.CO POKEM, CH

1448 GOT01328

1250 FORT=1T040 BY=SC+INT(RND(1)#438+67) IFFEEK(BY) <>32THENT=T-1

1270 FORB=SC+44TOSC+65 POKEB+C,5 FOKEB+C+440 5 FOKEB,40 POKEB+440,40 NEXT

1280 FORB=SC+66TOSC+462STEP22 POKEB+C,5 POKEB+C+21,5 POKEB,48 POKEB+21,40 NEXT

1450 REM-CHECK-ROUTINE-

1460 FORF=1T050STEP5 POKEY-10 POKES1-150+F KEXT .

1260 POKEBY+C, 1 : POKEBY, 43 : NEXT

1300 PRINT" AN! ##X"TAB(11)" & " | ##X"

1340 POKESI 0 CO=7 CH=41 FR=140

1290 POKEM, 32 POKEY, 10 1295 RENCHONED [YEL]

1320 REM ----LOOP----

1350 IFPEEK(841)=0THENY=1

1360 IFPEEK(842)=0THENY=2

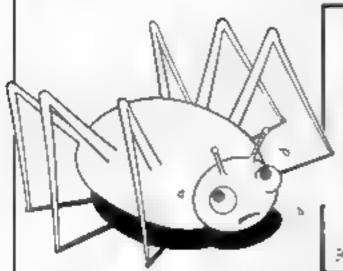
1370 IFPEEK(843)=0THENY=3

1380 IFPEEK(844)=0THENY=4

1310 GOSUB1480

1330 POKES1-2 FR

VIC-20 PROGRAMS 1470 PETURN 1480 REM ----SCORE---1490 IFSE MITHENHIESE 1495 REM [HOME][WHT]("#CP R FICHT][HCME] 1500 PRINT"X***** SE PRINT"%"3PC 17 / HI 1510 PETURN 1520 REM -RUC-MOVE--0 1530 M=M 22 POKEM+22 32 IFPEEK M =40THENM=M+22 Y=2 1540 RETURN 1550 M=M+12 PG:EM+22 32 IFFEEK(M)=40THENM=M+22 Y=1 1560 PETURN 1570 M=M-1 POKEM+1 32 IFPEEN M =40THENM=M+1 Y=4 1580 RETURN 1590 M=M+1 FOREM-1 32 IFPEEK(M)=40THENM=M-1 Y=3 1600 RETURN 1610 REM --END-GAME--1620 POKESI 0 POKES2 0 1630 POLEY 15 FORT=17050 POLEY 2 240 POLEY+1 32 FORK=1705 POLEY+1 40 POYEV+1.8 N E TK T



```
1705 REM [OLR]
 1710 CR=0 RE=0 PRINT"D" POME /+1 3 CCT01200
1720 REM---MIC-DATA----
 1730 DATA120 169 78,141 20 3 169 3 141 21 3 88
1740 DATA96 0 0 0 0 0 169.3 141 14 145 169 127 141
1750 DATA34 145.173 [7 [45 4] 4 [4] 7k 3 [73
 1750 DATAIT 145 41 8 141,74 3 173 17 145 41 15,141
17TO DATATE 3 173 32 145 41 128 141 78 3 17
1780 DATRIZ 145 41 % 141 77 3 169 255 141 34 145
 1790 DATA169 128 141.19 145 76 191 234 0 0.0 0 7167
1800 REM- CHAR-DATA---
1810 DATA251 130 130 250 10 10 251 0 0 0 0 0 0 0 0 0 239 8 8 8 8.5 239.0
1820 DATA198,162,162,198 164 162 152 8
1840 DATA248, 128, 139, 224, 130, 128, 248, 0 138, 136, 138, 250, 138, 138, 138, 138 0 0, 0, 0, 124,
0000
1840 DATA255 255 255 255 255 255 255 255
 1850 DATA68.40 124.84.124 40 68 0
 1860 DATAL6 56 84 214.84 84 84.124 4.8 16.56.8 16.32 64
1870 DATA130 68 124,84 124,68 130 0
```

```
1000 REM **********
1010 REM *
1020 REM *SOUND EFFECTS*
1030 REM * PROGRAMS
1949 REM *
1050 REM **********
1860 REM---PHOTON ATTACK
1070 POKE36878.15
1080 FORL=1T020
1090 FORF#255T0255-INT(PND:1:*128 CTEP+2
1100 POKE36876.F
1110 POKE36877,F
1120 NEXTE
1130 POKE36877,0
1140 MENTE
1150 POKEI6876,0
1160 POKEC6878.0
1170 CLR
1180 REM-----UFO LANDING
1190 POKE36878,15
```

1200	F0RF=100T0250STEP20
1210	FORT=1TOF+7
1228	FCPJ=TTOFSTEP-5
1230	IFJ>255THEN1280
1240	POKE36876, J
1258	NEXTI
1260	NEXTT
1279	NEXTF
1280	POKE36876/0
1290	FOKE36878.0
1300	CLR
1310	REMLONE UFO
1329	POKE36878,15
1330	FORT=10TO1STEP-1
1340	FORJ=1TOT
1350	FORF=1TOJ*5
	POKE36876,100+F
1370	POKE36874,200-F
1380	NEXTF
1390	NEXTJ

VIC-20 PROGRAMS

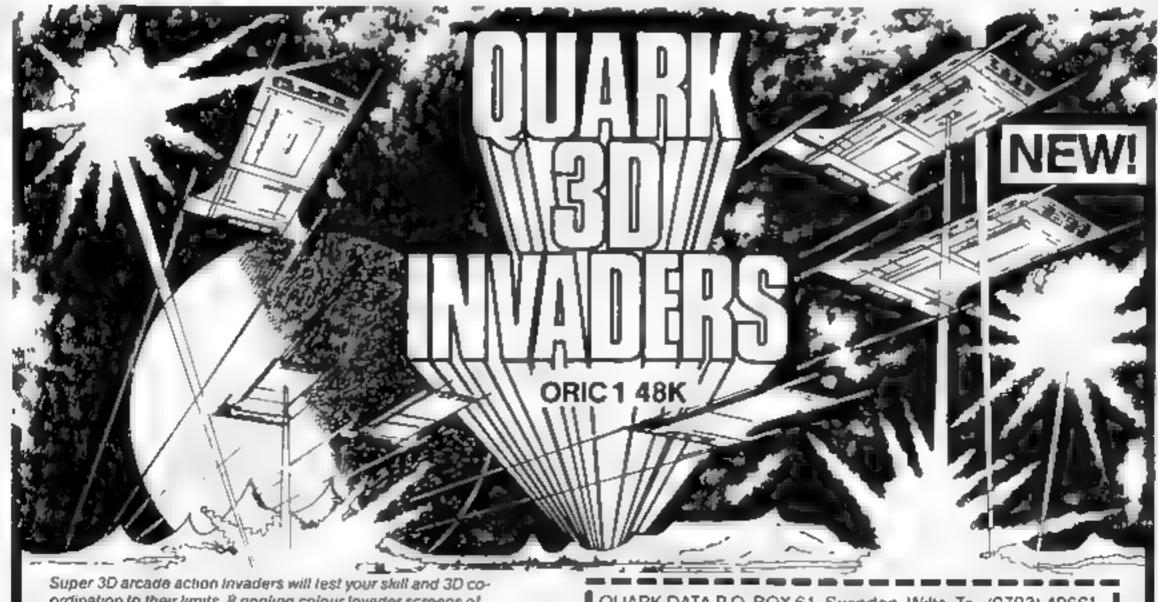
1420 1430 1440	POKE36876,0 POKE36874,0 POKE36878,0
1460	
	V=15
1480	POKE36878, V
1490	V=√-175
1500	IFVK0THENV=0
1510	F0RT=234T0254STEP2
	H=H+1
	IFA=3THENT=T-4 A=0
	POKE36876, T-14
	POKE36875, T
1560	HENTT
1570	
	POKE36875,0 IFV>0THEN1480
	POKE36878.8
1610	CLR
	REMRED ALERT
	POKE36878,15
	FORT=1T020
	POKE36876,242
1660	PQKE36875,161

1670	P9KE36874,163
1680	FGRL=1T0100
1690	NEXTL
1700	P0KE3687670
1710	POKE36875,0
1720	POKE36874,0
1730	FORL=1T0100
1740	NEXTL
1750	NEXTT
1760	POKE36878,0



1690 MEXTL 1700 POKE36876.0 1710 POKE36875.0 1720 POKE36874.0 1730 FORL=1T0100 1740 MEXTL 1750 MEXTL

1760 POK**E**36878,0 770 CLR 180 REM----HELICOPTER FOKE36878 15 FORT=1T0250 POME36877,254 FCkEC6874,13d FGFL=1T020 840 NEXTE .50 FORE16874.0 868 FG/E36877.8 F73 + E'.TT JOU FORED6877,0 998 FOXE36878.8 FEM----- FLANGER FOR E16878.15 315 F0FT=1T0598 940 PD ED6876,131 1958 ROMEDS375,136 1960 FORE36874.136 BEST HERTT 1988 POKER6876 9 330 AOME36875.0 1938 PONES6874, 8 1918 FCKE36878 #



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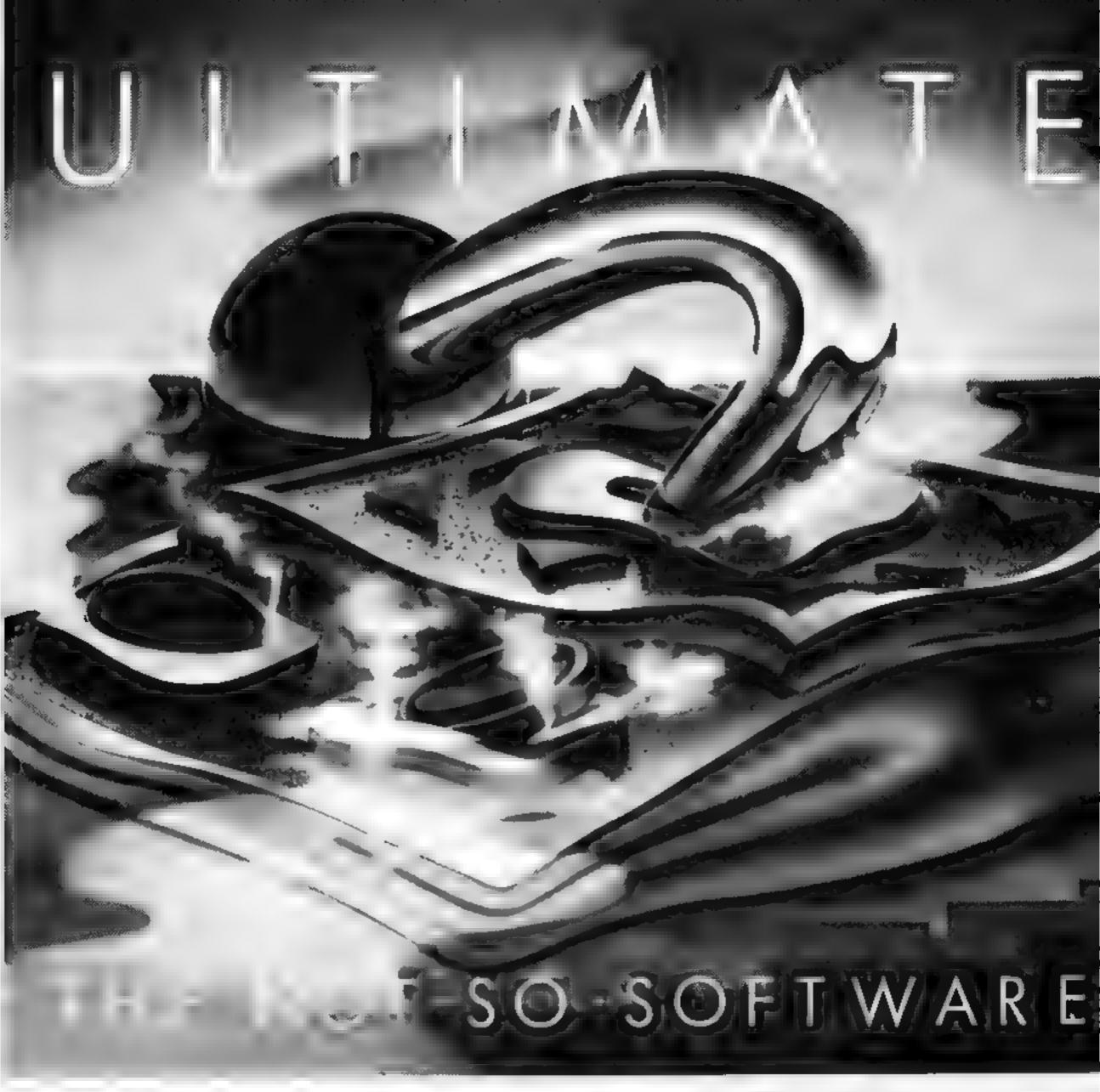
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A 11 es.

Send to Ultimate Play The Game The Green Ashby de la Zouch Le cestershire



Airstrike 2 Atari £9.95

English Software, Box 43, Manchester MI6 3AD

Airstrike 2 follows the usual Airstrike pattern — that of a horizontally scrolled cavern filled with fuel dumps and nasties, through which the player navigates his Mark X fighter demolishing as much of the opposition as he can en route.

Although the Mark X is wellarmed with missiles and bombs, it has a lot to contend with. Enemy mines and missiles are plentiful; and with limited fighter ordnance, fuel and munitions dumps are essential targets for replenishing on-board supplies.

You are given the option when starting of pressing the "T" key for combined missile and bomb

discharge capability - otherwise, the instructions say, the space bar must be pressed to telease your bomb-load. I found the program defaulted to the "T" option in any event

A one- or two-player game, Airstrike 2 is a good example of its kind. The graphics are nicely detailed and well complemented by colour. If you haven't ured of the idea, Airstrike 2 should satisfy your appetite for quite a while.

T.A.

70% instructions 85% playability 90% graphics 80% value for money



Trail of destruction?

Whether it's bombs, oil wells, nuclear reactors, or plain old sabotage, can you stop a disaster in this bunch of games?

Reactor **Spectrum** £7.95

Gemini, 18a Littleham Rd, Exmouth, Devon EX8 2QQ

Reactor has an alarming bug the first part of the program crashes on loading. However the next part will run correctly to reveal a challenging arcade-type game in which you have the daunting task of keeping a nuclear reactor under control.

Power, radiation and the number of metals increase when one of the neutrons which bounce around the reactor collides with a metal. You can reduce radiation by knocking a metal so it hits the discharge unit and leaves the reactor

With less metal it is easier to control the reactor and keep the radiation down but the power level may be too low to complete the second stage

If you survive long enough you move onto the second stage where your control unit leaves a trail of concrete blocks, used for filling the reactor to trap the active metals. And so on

Reactor is an absorbing game that shows few signs of being a one-minute wonder.

instructions	80%
płayability	80%
¥	65%
graphics	
value for money	75%



Bombastic! Atarl £9.95

English Software, Box 43, Man-

This is essentially a two-player game although the computer can play ag'm you and give you a mean run for your money.

Both players have mobile missile launchers stationed within two vertical lines, Between these two bases antimatter bombs appear out of the blackness of centre screen and drift at random. They are the target objectives At first translucent, they take on colour as missile shots are absorbed within The concussion of impact will cause the device to veer in a different direction

Normally bombs rebound off each other and missile silos but when enough missiles hit ontarget a cruical stage will have

been reached. After several colour variations the bomb will flare intermittently

Should it then touch a silo boundary it will explode creating a breach in your defences. If with successive attacks the gap is large enough for a device to detonate against the adjacent wall, all is

So the idea of the game is to use missile impact and splitsecond timing to drive antimatter bombs through your opponent's outer boundary to the inner

T.A.

instructions playability 60% graphics 95% value for money 75% 95%

Devastation & Sabotage T1-994A £4.99

Solid Software, 35 Melville Rd, Bispham, Blackpool FY2 9JF

Devastation is another version of the popular bomber arcade game in which you have to destroy a city by dropping bombs on it, in order to land your crippled aircraft In this version, as well as bombs you have a number of forward firing missiles and you also have the ability to climb should you get into trouble. This facility can only be used a limited amount of times, however, as there is a shortage of fuel The game may be played at any one of five skill levels, and in spite of it being another version of an old game I found it very entertaining.

Sabotage, again, is a variation on an old theme. You are presented with an oil field containing several wells owned by a villainous profiteer who is holding the world to ransom with his exorbitant prices Your job is to destroy the wells with explosives, but each well must be blown up in numerical order and you are not allowed to cross back over the fuse wire you have laid. Graphics and colour are very

good and the two games of Devastation and Sabotage together at the price shown are well worth a look at

80% าตรเกษณ์เดิดสร 90% playability 90% graphics 90% value for money

Gusher CBM 64 £9.95

Visions, 1 Felgate Mews, Studland St. London W6 9JT

The blurb and instructions on the packaging had led me to believe that this was an entirely original geme, so it was quite a surprise to find, on loading it, that it is merely a computer version of an old board game. Not that it's an exact copy — most of the features that made the board game worth playing have been left out.

It's a game for two to four players. You have to produce oil, transport it by locry or pipeline to a refinery, and then export it by ship; the first person to reach the export target is the winner The decision-making required, and the opportunities to

sabotage one's opponents, have been minimised to success is almost entirely a maiter of luck.

The map on which the game takes place is quite attractive, but this does little to compensate for the basic dualness of the game. In fact, it's so boring that I couldn't persuade anyone to play it with me. I did play it right through once, just in case there was an exciting win sequence at the end - there wasn't - but I don't think I'll ever play it again M.N.

instructions 50% playability 60%graphics 15% value for money



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SPECTRUM PROGRAM



Fancy a day at the races? Try my program and starting with £20, you could win thousands of pounds... or you may be walking home.

I have tried to create something quite different from zapping aliens and escaping from mazes, both of which in my opinion have been almost totally exhausted.

Anyway, this game is a nonviolent and realistic day out at the races

It has proved fairly addictive in my family.

All the instructions are in the program.

Note: capital

letters in the PRINT statements should, unless text, be entered in GRAPHICS mode

Variables.

C1,C2,C3 horse colours a,b,e horizontal position of horse odd 1, odd 2, odd 3 random odds money your money race race number up to 9 sad saddle colour

bet which horse bet on stake how much staked on horse n horse names

268 IF b>27 THEN PRINT AT 15.27; PAPER 4:" ":AT 16.27:" ": LET 6=28 265 BEEP -813, 14 278 PRINT AT 15,b; INK c2; PAPER 4:as:AT 16,b;cs;AT 15,b+2; INK sad+1;"H" 275 IF b=28 THEN GO TO 1050 280 IF c>27 THEM PRINT AT 18,27; PAPER 4:" ":AT 19,27;" ": LET c=28 278 PRINT AT 18,c; [NF c3; PAPER 4/as;AT 19,c;c*;AT 18,c+2; [NF mad; B" 295 IF c=28 THEN 60 TO 1100 300 BEEF .806,-15 358 LET asa+RND; LET b=b+RND: LET c=c+RND; GQ TO 200 1000 FOR g=1 TO 10: PRINT AT 13.q:" THE WINNER ! ! !": BEEP .01.40: BEEP .0!,30+ QI NEXY O: BEEF .5,28 1818 IF betwl THEN LET money-money+(stake+(stake=odd1))

1020 PRINT AT 1,20; money 1636 60 TO 25 1858 FOR g=1 TO LB: PRINT AT 16.g: " THE WINNER " (**; BEEP .0).40: BEEP .01.30+

gr MEXT gr BEEP .5,15 1868 IF bet#2 THEN LET money*money*(stake*(stake*pdd2))

1978 PRINT AT 1,28; money 1888 BO TO 25

1100 FOR g=1 TO 10: PRINT AT 19,01" THE WINNER ! ! "": BEEP .01,40: BEEP .01,30+ Q1 MEXT OF BEEP .5,18

1118 IF bet=3 THEW LET money=money=(stake=(stake=odd3))

1120 PRINT AT 1,28; money

1130 GO TO 25

7866 LET odd1=INT (RND+5)+2 7010 LET odd2=1NT (RND+5)+2

7026 LET odd3=INT (RND+5)+2 7022 IF odd1=6 THEN LET odd1=7

7024 IF odd2=4 AND RND>.5 THEN LET odd2=8

7026 1F odd3+5 AND RND>.6 THEN LET odd3+9

7030 PRINT AT 12,26; odd (;AT 15,26; odd2;AT 10,26; odd3

7100 PRINT AT 6,1:"Do you wish to":AT 1,1:"place a bet y/n?"

7118 IF INKEYP="y" OR INKEY#="Y" THEN BEEP .25,10: 60 TO 7130 7120 IF INKEYS="h" OR INFEYS="N" THEN BEEP .25,10: LET bet #0: 90 TO 172

7125 SO TO 7110

7138 PRINT AT 8,1; "Which horse "; AT 1,1; "1, 2, or 3 ?

7148 IF IMMEY#="1" THEN PRINT AT 12,314 PAPER 4: IMM 7:"*": LET bet=1: 80 TO 728

7:50 IF INFEY=="Z" THEN PRINT AT 15.31; PAPER 4; INK 7:"4": LET bet=Z: GD TD 722

7160 IF INMEYS*"3" THEN PRINT AT 18,31; PAPER 4; INF 7;" "": LET 6#1#3: 60 TO 720

7179 GO TO 7140

7200 BEEP .25.10: PRINT AT 0.1: "How much do you ":AT 1,1: "want to bet ?

7218 INPUT stare



SPECTRUM PROGRAM





15 zeroes race, sets up £20 in bank

20 describes horse parts 32-38 count races

40-54 set colours of horses 60-65 set colours of saddles 70-120 draw scene and horses

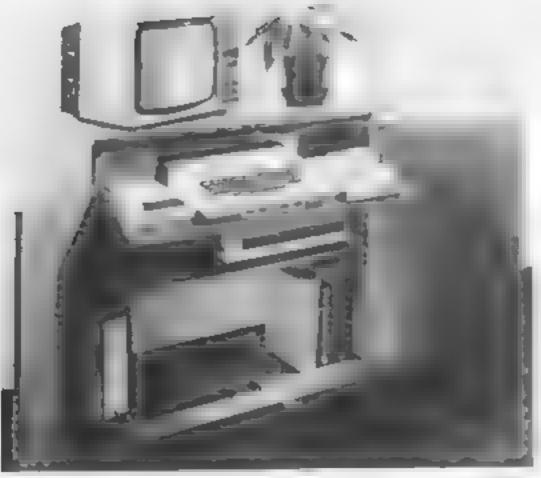
150-160 print random horse NI . 180-350 main race loop 1000 Indicates winner 1010-1130 works out winnings

7000-7030 prints odds 7100-7250 question user on which horsee etc.

8001-8020 horse names: these can, of course, be changed 9000-9050 graphics

9900-9970 final message

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LETTERS

A question of copies

Piracy. Piracy... how can we stop it? You've probably heard this question a few times, but isn't the most sensible answer to reduce the price of the games?

Most good games cost around £6 with the best at around £12. How can you expect someone to pay such an amount for one game?

I go to a school where the computer density is very high and so is the piracy of games. But why do people purchase this kind of software?

It must be possible to sell all these good games at present on the market with a smaller price tag. After all, it only costs the software houses about 60p to market one game. This excludes royalties and profits which then bring the price up to about £10.

Before I go I'll leave you who have copies of games with a question: If the price of a game was reduced, would you buy the copied version or the original? Samrendu Singh, aged 12,

It's horses

I would like to point out to Mr Mathews (Will we speak BASIC? HCW 51) that, although the rationalisation of computer languages into one standard language is in essence a good idea, it is in fact a totally impractical suggestion.

No single language — especially the slow interpreted BASIC — could possibly cater for the specialist applications required of it.

Every language has its own good points and its own particular problems, from the low-level but fast and very useful assembler to the most modern of the very high level artificial intelligence languages (Prolog, Lisp etc) and the high-level semi-compiled languages, like Pascal

Try writing effective and efficient artificial intelligence programs in BASIC, of all languages!

Each also has its own specialist applications in its own field of industry, commerce or whatever: Cobol for business and data processing. Fortran for scientific and mathematical problem solving.

Try writing a Simpson's Rule application program in Cobol or, conversely, a data processing program in Fortran

Obviously, each language has a certain amount of flexibility. But for each

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application the most effective and appropriate language for that application should be chosen

I would point out that the original intended application for BASIC was as a simple high level language for beginners to learn about programming

This application is now filled by yet another language, better qualified to do this than BASIC Logo.

Even though BASIC is slowly moving away from its roots, it would be a totally inappropriate language to inflict upon professional programmers, especially when BASIC itself has diversified into so many dialects spread over such a wide range of incompatible machines

Most other languages are far closer between machines than BASIC.

G.R.G. Uill, Arbroath, Angus

magazines must act over piracy

Computer games software is the dynamic success story of the current economic recession and is an area where, for a change, Britain has a tangible lead over competing countries.

The games aofiware industry is a part of the emerging leasure technology industry and our lead in games will be reflected in other areas of technology as they emerge, given a chance.

The boom in games software has created jobs, not only directly but in printing, duplicating, advertising and in the magazine industry. As lessure technology progresses it could become a major source of employment.

All this is being jeopardised by the selfish activities of members of the public who are copying games instead of buying them. This is theft. We are not talking about isolated

instances, we are talking about "user groups" running mini production lines at their evening meetings and stealing as many as 2,000 copies of successful individual titles at one go.

Conservative estimates regard seven copies for each legitimate product as being a realistic overall picture of the marketplace

This is risking the livelihoods of everyone in the industry, including the magazines. The games companies have far less to spend on advertising space and if the epidemic continues will have less still. This is the reality of the situation

The media is a powerful force yet in this instance is doing little or nothing to use this power. Some magazines even carry small advertisements for blatant copies. Some magazines have actually carried editorial condoning the thieves. They are cutting off their nosees to spite their faces

The time has come for all computer magazines to foll concerted campaign to stop piracy. Editorial must campaign for law changes creating harsher penalties. The copying clubs must be exposed. Advertising executives must filter out the pirates' adverts. Piracy must become unpopular.

It is no good expecting the software companies to solve the problem, they have not the organisation or power — it is the media that has. Any magazine that does not act is not facing up to reality

David Lawson, Mark Butler, Bruce Everist, Inn Hetherington, directors, Imagine Software, Liverpool

New record

I am writing with reference to Stephen Butcher's letter (HCW 49) about Microdrive order forms

I have to take over his world record due to the fact that I have now received eight forms.

J. McKellar Main, Reiford, Notts

Beaten him?

I'm writing to see if anyone has got 100 per cent on the Spectrum version of The Hobbit. My highest score is 92.5 per cent and if anyone has managed to get better than my score could they inform HCW?

Phil Hoyle, Rhiendahlen, Germany

Muceor Spce

Your challenge in this game is to survive while bombing targets.

The game screen is split into two sections: the top half has meteors to avoid and the bottom has a landscape.

Your ship will appear in the centre of the screen and then the screen will scroll from right to left, achieved by using constantly updated strings."

The landscape section has targets to bomb and to survive you must keep hitting the pods, which increase your power by at least 51 units.

The missiles score points only. You lose units of power for each shot, so don't be too trigger happy!

Before starting you will be asked to choose a difficulty level and this controls your power consumption.

You've lost if you run out of power or crash

You score 10 points for hitting a pod and 15 points for each missile.

The controls are:

X up down arrow down up arrow up

Variables

PC% power consumption level PW % power level

UD% vertical position of space-

AS landscape string (not up-

GS-MS landscape and meteor string variables

LIS, RIS variables used in updating string variables

SN loop counter - used when removing hit objects

PK, K\$ keyboard values SC% your score HI high score

Listing for Meteor Race

TO REM

28 REM BY A.P. BARDNER

38 PRINTCHR\$(17); CHR\$(6):LORES8

SECTION ASSESSMENT 1000

47 REM CHOOSE DIFICULTY

58 CLS

58 PRINT: PRINT WHAT POWER CONSUMPTION (1-7) "

45 PRINT: INPUT"7 BEING HARDEST"; PC%

78 IFPCYK1THENPCX#1

80 IFPC%>LOTHEMPC%=18

BS PCX-PCX+3

87 CLS

98 BOSUB1200

How it works 30 switches off key-click/curtor

Leap,

and b

three

100-270 set variables 310-385 scan keyboard, make adjustments, check for crash,

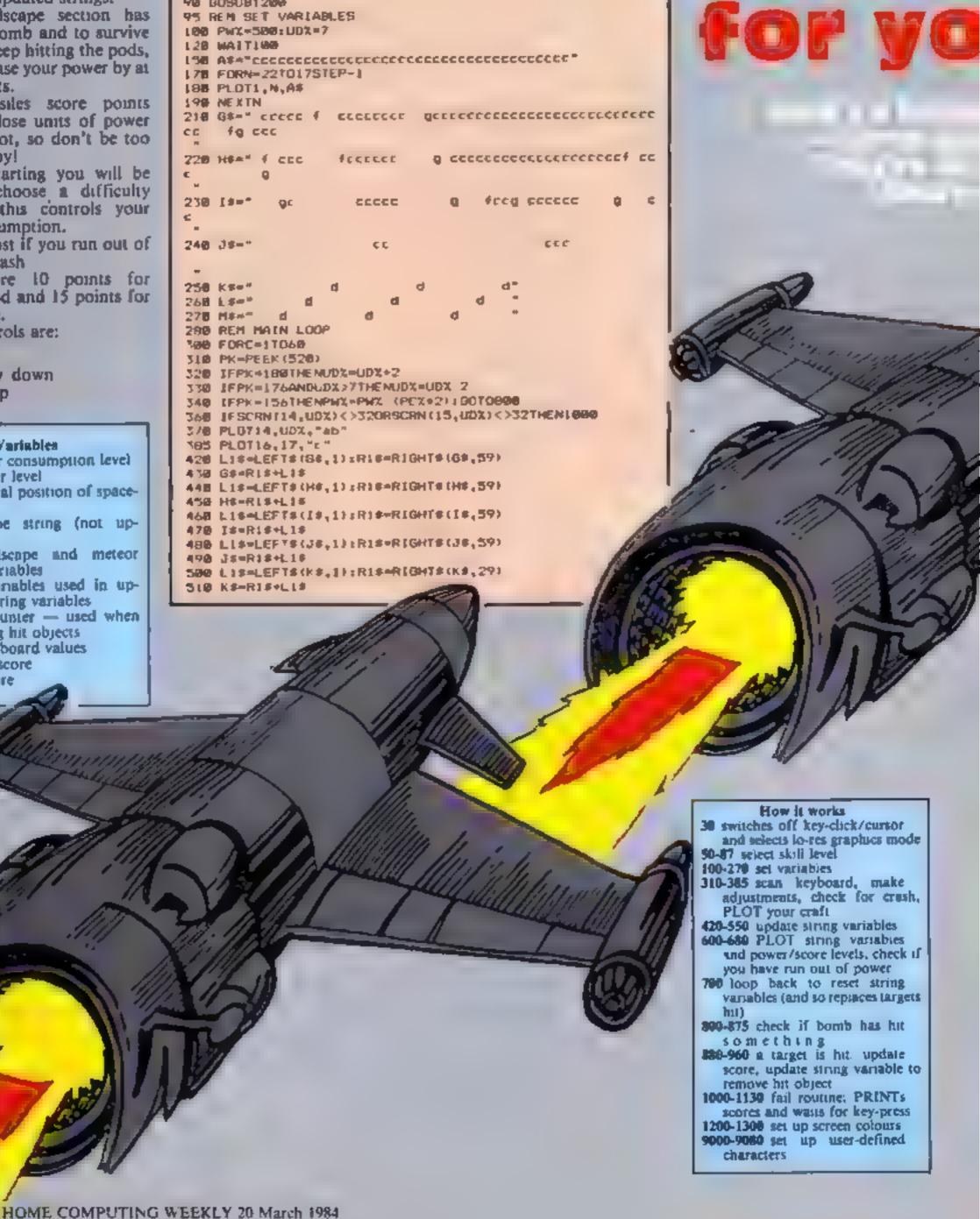
PLOT your craft 420-550 update string variables 600-680 PLOT string variables

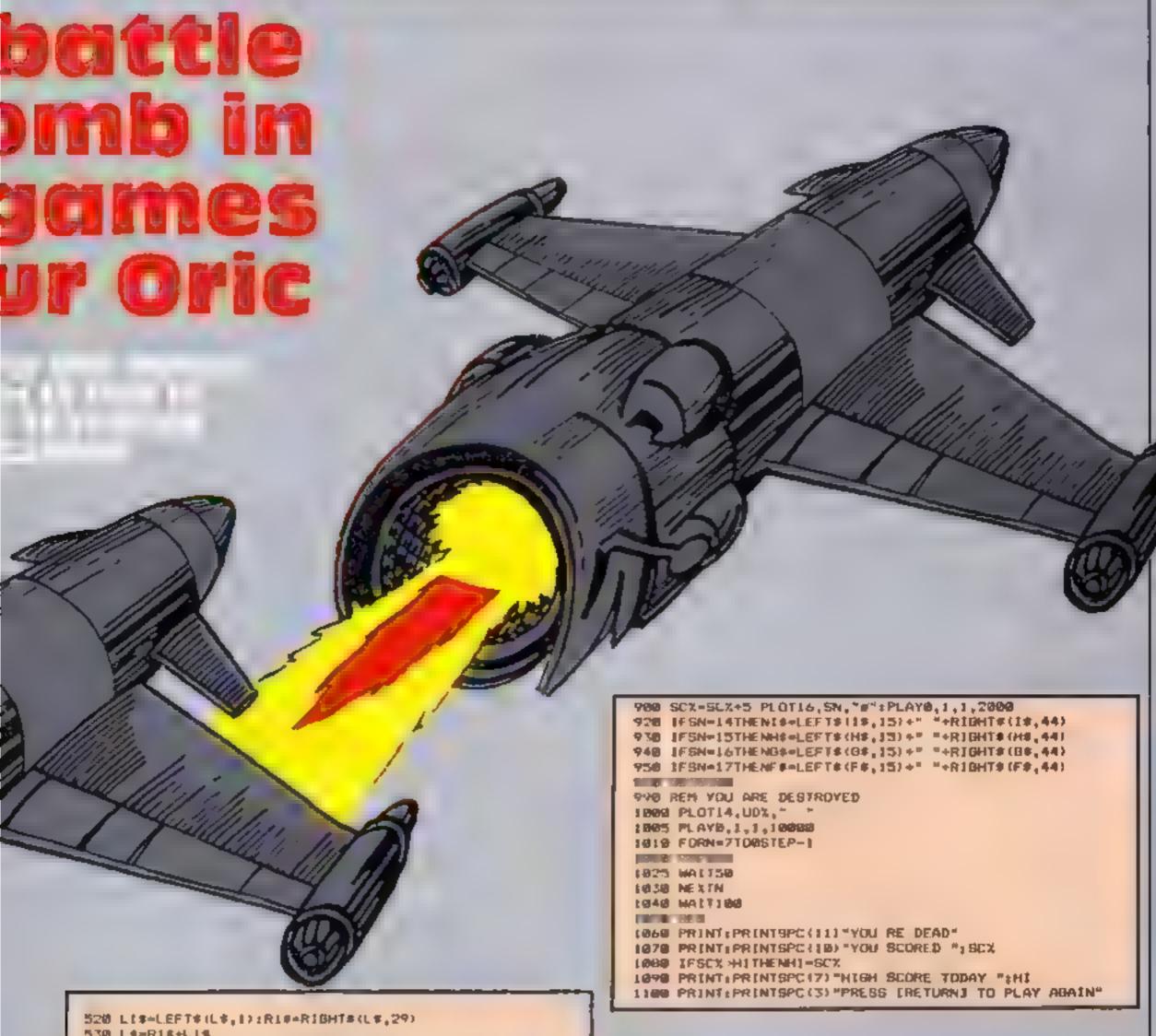
and power/score levels, check if you have run out of power 700 loop back to reset string variables (and so repiaces targets

800-875 check if bomb has hit

888-960 a target is hit update score, update string variable to remove hit object

1000-1130 fail routine: PRINTs scores and wasts for key-press 1200-1300 set up screen colours 9000-9080 set up user-defined





```
570 L#=R1#+LL#
540 L(#=LEFT#(M#, |) | R19=RIGHT#(M#, 29)
550 M#=R1#+L1#
600 PLOTI,16, LEFT* (G*,37)
618 PLDF1.15, LEFT# (H#, 37)
620 PLOTS,14,LEFT#(I#,37)
638 PLOT1,13,LEFT#(J#,37)
640 PLOTI,11,K#
650 PLOT1,9,14
660 PLOTE, 7, M#
665 PLOT11,2, "SCORE "+STR#(SCX)
678 PWZ=PWX-PC%
575 IFPWX: BYHENPLOT12,12, "OUT OF FUEL": GOTO: 800
ABB PLOT(8,24,"POWER "+STR#(PW%)+" "
698 NEXTC
700 SOT0210
798 REM CHECK FOR HIT
600 FORSN=(UDX+1) TO17
BIN IFSCRN(16,SN)<>32THEN850
BZE MEKTEN
BSB IFSCRN(IA,SN)<>99THEM888
868 PLOT16, SN, "#"
878 PLAYB, 1, 1, 2008
875 GOT0368
877 REM SOMETHING IS HIT
668 SCX=SCX+18
8-70 IFSCRN (16, SN) = 102*7#ENPWX=PWX+65: PLOT16, SN, "#": PLAYB
,1,2,1000:60
TD720
```

```
1110 KA-KEYS
#120 TFk #<>""THENTFASC IK#1=13THEN45
1138 60701118
1198 REM SET UP SCREEN COLOURS
1200 PAPERO: INKS
1218 PLDT8,2,6
1228 FORM=77011
1238 PLDT8,N,1
NAME OF TAXABLE PARTY.
1250 FORN=13TD22
1268 PLOTO,N,2
$278 NEXTN
1200 PLUT1,24.6
THE RESIDENCE
8998 REM USER DEFINED BRAPHICS
9000 FDRP=(46000+(97+B))TD(46080+(103+0)+7)
9018 READUS: POKEP, US: NEXTP: RETURN
7020 DATA0.0,40,63,63,3,0,6
9938 DATA0,0,24,35,63,32,0,0
9840 DATA63,63,63,63,63,63,63
9050 DATA0,38,31,63,63,63,24,8
9868 DATA18,9,36,18,9,36,18,9
9878 BATA38,18,18,18,18,12,18,33
9888 DATA12,12,12,30,12,12,38,38
```

Swerve

You're pitted against the computer in a battle of skill.

You and the computer start at opposite sides of the screen. moving towards each other. Both of you leave a wall behind you and your wall is solid.

You must avoid the walls and smaller obstacles and not leave the game boundary.

The loser is the first to crash five tunes.

You control your direction with the cursor keys.

How It works

30 switches off key-click/cursor and sets screen colours

60-130 scan keyboard, make adjustments, check for colbsion, PLOT player's square

140-190 adjust computer's position, PLOTs square, checks for an obstacle

200-250 changes computer's direction, checks for collision 260-320 crash routines for you and computer

400-470 PRINT latest scores 500-560 game over, PRINT who won, wait for key-press

5000-5040 automatically adjust position of you and computer 7000-7130 set some variables,

PLOT screen 8000-8070 set other variables and select skill level

9000-9110 set up user-defined graphics

Variables

Y your total score

O computer's total score

SL skill level values

P/KS keyboard values H%(N), V%(N) horizontal, vertical positions of computer

and you D%(N) direction of computer and you

N controls arrays H%, V% and D%

Listing for Swerve

28 REM BY A.P. GARDNER

30 PRINTCHR#(17) | CHR#(6) | PAPERB: INK3

46 605089888

58 605UBB8888

57 REM MAIN LOOP

68 P=PEEK (528) zN=8

20 IFP=172THE:NDX(N)=1

98 IFP=198THENDX(N)=2 98 IFP=188THENDX(N)=3

106 IFP=156THENDX (N) =4

128 [FSCRN (HX (N) , VX (N)) <>32THEN388

138 PLOTHX (N) , VX (N) , "a"

THE RESERVE

168 [FSCRN (HZ (N) , VX (N)) < >32THEN288

178 PLOTHX (N) , VX (N) , "6"

108 H1X=HX (N) (V1X=VX (N)

198 GOTD&8

195 REM ADJUST COMPUTER B DIRECTION

205 F=1NT (RND(1)=2):HX(N)=HLX:VX(N)=V1X

216 1FF = 0THENDX(N) = DX(N) 1

228 IFF=[THENDX(N)=DX(N)+1

223 IFOX (N) < 1 THENDX (N) =4 226 IFDX(N)>4THENDX(N)=1

238 GC9UB5888

248 1FSCRN (HX (N) , VX (N)) = 32THEN178

241 MX (N) =H(2: VX (N) =V1X

243 1FDX(N)=3THENDX(N)=1:GOTO247

244 IF DX (N) = 4THE NDX (N) = 2: GOTO247

245 DX (N) = DX (N) +2

247 GOSUB5608

258 1FSCRN (HX (N) , VX (N)) = 32THEN178

255 REM COMPUTER CRASH

278 FORN=7T088TEP-LiPAPERNIHATT28:NEXTN

298 Y=Y+L

295 REH YOU CRASH

300 EXPLODE

318 FORN-7108STEP-1:PARM

328 O=O+L

398 REM SHOW LATEST SCORES 408 WATTER

418 CLS

420 IFY-STHENSLO 438 LF0=5THEN588

440 PRINT: PRINT: PRINTSPC (11) "SCORES SO FAR"

458 PRINT: PRINTSPC (18) "ORIC-1 ":0:" YOU ":Y

466 MAIT300

FIRST COLUMN

498 REH BAHE DVER 500 PRINT:PRINT:PRINTSPC(11)"ORIC-1 WINS":GOTO520

518 PRINTEPRINTEPRINTSPC(13) "YOU WIN"

528 FORM-ITO3:PINB: WAIT58: NEXTN

53B K#=KEY# 548 PRENTIPRINTIPRINTSPC(3)*PRESS A KEY FOR ANOTHER GAM.



Hints on conversion

These games could be fairly easily converted to most computers with Microsoft BASIC: POKE and CHRS statements can be removed

PAPER, INK control back ground, foreground colours

WAIT creates a pause for a specified number of milliseconds

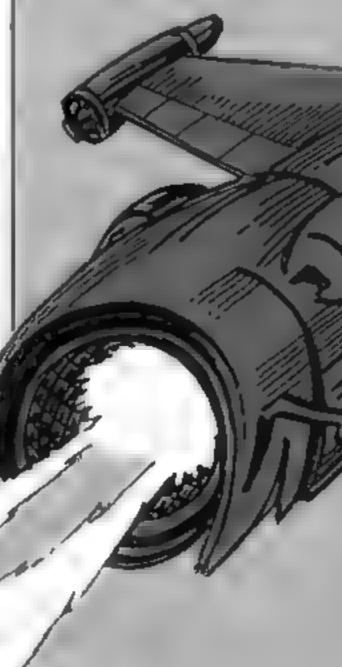
PLOT x,y is equivalent to PRINT @ x is the horizonial position and y the vertical PLOTing a number sets a colour attribute

KFYS scans the keyboard SCRN (x,y), (screen PEEK) returns the ASCII value for the position given

CLS clears the screen PLAY creates a sound and can

be deleted or replaced SHOOT, EXPLODE and PING are Oric sound commands

SPC can be replaced by IAB or removed



HOME COMPUTING WEEKLY 20 March 1984

4770 REM ADJUSTMENTS TO DIRECTION 5000 150% (N) =1 THENHX (N) =HX (N) -1 5010 IFDX(N)=2THENVX(N)=VX(N)+1 5020 IFDX (N) = 3THENHX (N) = HX (N) + L 5030 IFD2 (N) =4THENV2 (N) =V2 (N) -1 5848 RETURN 6998 REM SCREEN 7000 HX(0)=13:VX(0)=13:DX(0)=3 7010 HX (1)=25: VX (1)=13: DX (1)=1: INKB 7030 FORM=1T025 7040 PLOT1.N."1 **7050 NEXTN** 7070 FORN=1TOSL 7000 A= INT (RND(1) +35) +2 7090 B=1NT(RND(1)+24)+1 7100 3F9=13THEN(FA>12ANDA<26THEN7080 7110 PLOTA, B, "0" 7120 NEXTN: INK3 7130 RETURN 7998 REM VARIABLES, CHOOSE SKILL LEVEL SHOO A-6:0-6 8818 8828 PRINT:PRINTSPC(5) "WHAT SKILL LEVEL (1-38)" 6030 PRINT: IMPUT 1 BEING THE EASIEST": SL 6240 IFSL<1THENSL=1 6050 IFSL>30THENSL=30 0260 CLS.WAIT:00 9878 RETURN 8998 REM USER DEFINED GRAPHICS 9900 FORP=(46080+(97+0))TO(46000+(186+0)+7) 9818 READULPOKEP, ULNEXTPLRETURN 9828 DATA63,63,63,63,63,63,63,63 9030 DATA63,33,45,45,45,45,33,63 9848 DATA8,8,8,8,8,8,3,2 9858 DATA0,8,8,8,8,8,8,63,8 9868 DATAB, 8, 8, 8, 8, 48, 16 DATAZ,3,9,6,0,8,0,8 9888 DATA16,48,8,8,8,8,8,8,8 9899 DATA16,16,16,16,16,16,16,16 9100 DATA2,2,2,2,2,2,2,2 DATAG, 63, 0, 0, 0, 0, 0, 0 Variables SL skill level value AS, BS belt strings LV% number of remaining lives LV\$ LS strings to display lives SC% score HI high score UD% vertical position of person K\$ keyboard value W W WAIT value - controls speed C\$ stores belt edges **Conveyor Belt**

As an errand person you always get the worst and most dangerous jobs.

The evil wizard has given you a message to take to the manager of the mines. To do this you must cross two lines of conveyor belts which carry lumps of ore.

You must leap from belt to belt without hitting the ore — if you do you're knocked into the machine workings and that can be painful.

The wizard has also cast a spell which makes you start again after you've crossed

Luckily, you have three lives and you can adjust the level of difficulty.

You move forward by pressing any key and gain five points for every line of belts crossed.

How it works

30 switches off key-click/cursor and selects lo-res graphics

60-100 select skill level and make adjustments

107-110 set other variables

130-140 scan keyboard 150-200 adjust belt strings and

PLOT them on screen 210-280 check for hit. PLOT person, PLOT latest score

300-384 fail routine, updates lives total and checks for end of game

390-460 end of game, PRINT scores, waits for key

500-550 you've crossed, update

650-750 set up screen and colours 9000-9050 set up user-defined graphics

Listing for Conveyor Belt

```
20 REW BY A.P. GARDNER
30 PRINTCHR#(17);CHR#(6):LORES0
35 PAPERO: INK3
48 SOSUB9888
50 BH
60 PRINT:PRINT:INPUT"WHAT SKILL LEVEL (1-4) ": 5L
63 IF SLK1THENSL=1
67 IFSL >4THENSL=4
78 1FSL=1THENA#="
                                                    cdc"
                        CCG
                                          Еď
86 IFSL=2THENA##"
                                                      E "
                      ccd
                                đ
                                       CO
98 IF SL = 3THE NA#="
                      ccd
                              d
                                    r.d
                                           cdcc
                                                    cdd"
100 IFSL=47HENA*="
                                                     cdd"
                      ccd
                             d.
                                  cd
                                        cdcc
195 LV#=" aa"
107 C#="
118 SCX=8: UDX=25: B#=RIGHT# (A#, 34) +LEFT# (A#, 2) +LVX=3:L#=
LEFT#(LV#,LV
X1:WX=1
115 IFSL >1THENHX=SL+5
LTO KSHKEYS
LAB IFF.#<>>**THENDDX=LIDX-2
158 R#=RIGHT#(A#,35):L#=LEFT#(A#,1)
168 AF=RS+L#
178 R#=RIGHT#(B#,1);L#=LEFT#(B#,35)
188 B#=R#+L#
198 PLDT1,7,A$:PLDT1,9,B$:PLDT1,11,A$:PLDT1,13,B$
200 PLOT1,17,A#:PLOT1,19,B#:PLOT1,21,A#:PLOT1,23,B#
210 PLOT18,25,* ":PLOT18,15,"
228 IFSCRN(18,UD%) < 32THEN388
278 PLOT18, UDX, "A"
248 1FU0X< 7THE NS88
250 PLOT7.1.STR#(SCX):PLOT7.2.STR#(SCX)
260 IFSC% HITHENHI#SC%
278 PLOT23,1,STR*(H1):PLOT23,2,STR*(H1)
275 MALTMX
288 BOTO1 48
298 REM YOU RE HIT
300 PLOTIB, UDX, CHR# (126)
310 PLAY0, 1, 1, 300
315 IFUDX-17THE NSCX=SCX+5
320 HALTSD
330 PLOTIS,UDX, "b"
340 PLAY0,1,1,5000
108 PAPER7: MAITSB
368 PAPERILWALTSB
378 PAPERO: WAIT100
NOB PLOTIB, UDX, "
781 LVX-LVX-1
382 C##EEFT#(LV#,LV%)+" "
383 PLOT34, L, E#; PLOT34, 2, L#
400 PRINT: PRINTSPC(11) "YOU RE DEAD"
418 PRINT:PRINTSPC (10) "YOU BOORED "15C%
415 IFSCX>HITHERHIDESCX
428 PRINTIPRINTSPC (10) "HIGH SCORE "INI
438 PRINT:PRINTSPC(3) "PRESS [RETURN] TO PLAY AGAIN"
448 KS-KEYS
450 [FK#<>**THENIFASC(K#)=13THENGOTOSB
440
490 REM YOU VE CROSSED!
588 FORN=1TG3:PLAY8,1,2,188:WAJT58:NEXTN
520 PLOTIB.UDX." "
530 UD4=251SC4=SC4+10
540 PLOTIB.UDX. "a"
550 GOTO138
648 REM SCREEN
650 BEE
660 POFE48881, 18: POKE4B121, 18
678 PLUTZ,1,"SCORE":PLUTZ,2,"SCORE"
688 PLOT29,1,"LIVES", PLOT29,2,"LIVES"
681 PLOT34,1,10:PLOT34,2,L#
482 PLOT15.1,"HI-SCORE":PLOT15.2,"HI-SCORE"
685 PLOTI,1,2:PLOT1,2,2
490 PLOT1,7,A$:PLDT1,9,B$:PLDT1,I1,A$:PLOT1,I3,B#
695 PLOT1,6,C$:PLDT1,8,C$:PLOT1,18,C$:PLOT1,12,C$:PLOT1
700 PLUT1, 17, A$:PLUT1, 19, B$:PLUT1, 21, A$:PLUT1, 23, B$
785 PLOT1,16,C#:PLOT1,18,C#:PLOT1,20,C#:PLOT1,22,C#:PLO
T1,24,C#
718 PLOT18,25, "a"
720 FORN=71023STEP2
730 PLOTB,N. I
735 NEXTN
740 PLOTO,5,2:PLOTO,15,2:PLOTO,25,2
750 mm
8990 REM USER DEFINED GRAPHICS
9888 FORP=(46888+(97+8))T0(46888+(188+8)+7)
9010 READUS: POKEP, US: NEXTP: RETURN
9828 DATA31,17,31,4,31,4,10,17
9838 DATA33,8,8,12,12,0,8,33
9848 DATAR,12,14,38,38,28,8,8
9050 DATAB,0,4,12,12,0,0,0
```



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Top Ten programs for the Commodore 64

Projects (2) Manic Miner Quicksilva (3) Buga Boo (The Flea) Ocean (1) Chinese Juggler Ocean (5) Paramount (6) Mr Wimpy M.House (--) Magawarz 5 M House (10) Hobbit 64 6 **Hungry Horace** Virgin (8) Llamasoft (-) Falcon Patrol Hover Boyver

Compiled by Websters. Figures in brackets are last week's positions

Ocean (--)

Top Ten programs for the Dragon 32

101	I for h a	
,	Hungry Horace	Mel House (1) Softek (4) Peaksoft (-)
2	UGHI	Peaksuit
3	SAS	Microdeal (10)
4 5 6 7 8 9	Skramble Space Shuttle Simulator Up Periscope Devil Assault Eight Ball The King	Microdeal (-) Beyond (6) Microdeal (7) Microdeal (2) Microdeal (-)
10	- Parlyanian	Richard Shepher
10	Tower	()

Top Ten programs for the VIC-20

1	Computer Wars	Thorn EMI (1)
2	Wizard and the	
	Princess	M. House (3)
3	Crazy Kong	Interceptor (-)
4	Bewitched	Imagina ()
5	Paratrooper	Rabbit (5)
6	Gridrunner	Liamasoft (8)
7	M.L.B.A.T.E.T.	Llamasoft (2)
8	Arcadia	(magine (6)
9	Wacky Walters	Imagine (9)
10	Jet Pac	Ultimate (10)

Compiled by Websters. Figures in brackets are last week's positions

Top Ten programs for the ZXM

	Flight Simulation	Sinclair (1) Sinclair (-)
1	Chess 1K	Addictive (5)
2	Football Manager	Quicksilvs (3)
3	F-001Dail 1	Quicksilvs (2)
4	Invaders	Calicication
5	Defenders	Sinclair (-)
6	Fantasy Games	Sinclair (-)
7	Chess	PSS (4)
8	Krazy Kong	pss (6)
9	Hopper	Bug-Byte (-)
10	ZX D.B.	Sinclair (-)
_		Figures in brackets are
	A Law Wighsters.	Figures III Chest
C	ompiled by ***********************************	
t-	- F WARRY 3 DOSIDO	

BEST SELLERS

Top 30

1	Manic Miner	Software	
		Projects	Spectrum (1)
2	Hunchback	Ocean	Spectrum (2)
3	3D Ant Attack	Quicksilva	Spectrum (3)
4	Atic Atac	Ultimate	Spectrum (6)
5	Hunchback	Ocean	CBM 64 (10)
6	The Hobbit	M.House	Spectrum (5)
7	Bear Bovver	Artic	Spectrum (22)
- 8	Lunar Jetman	Ultimate	Spectrum (7)
9	Chinese Juggler	Ocean	CBM 64 (27)
10	Chuckie Egg	ASF	Spectrum (11)
11	Buga Boo		
	(The Flea)	Quicksilva	Spectrum (23)
12	Eskimo Eddie	Ocean	Spectrum (25)
13	Frogger	Microdeal	Dragon (15)
14	Snooker	Visions	VIC-20 (28)
15	The King	Microdeal	Dragon (14)
16	Falcon Patrol	Virgin	CBM 64 (12)
17	Hobbit	M.House	CBM 64 (13)
18	Jet Set Willie	Software	
		Projects	Spectrum ()
19	Chequered Flag	Psion	Spectrum (19)
20	Cuthbert in the		
	Jungle	Microdeal	Dragon (21)
21	Hunchback	Superior	BBC (20)
22	Pedro	imagine	Dragon (29)
1	Zzoom	Imagine	Spectrum (17)
24	Harrier Attack	Durrell	Spectrum (9)
	Penetrator	M.House	Spectrum (19)
	Colossus Chess	CDS	CBM 64 (30)
27		Interceptor	CBM 64 (24)
	Quasar	Voyager	CBM 64 (-)
29		Imagine	VIC-20 (22)
30	Crashman	New	
		Generation	Spectrum ()

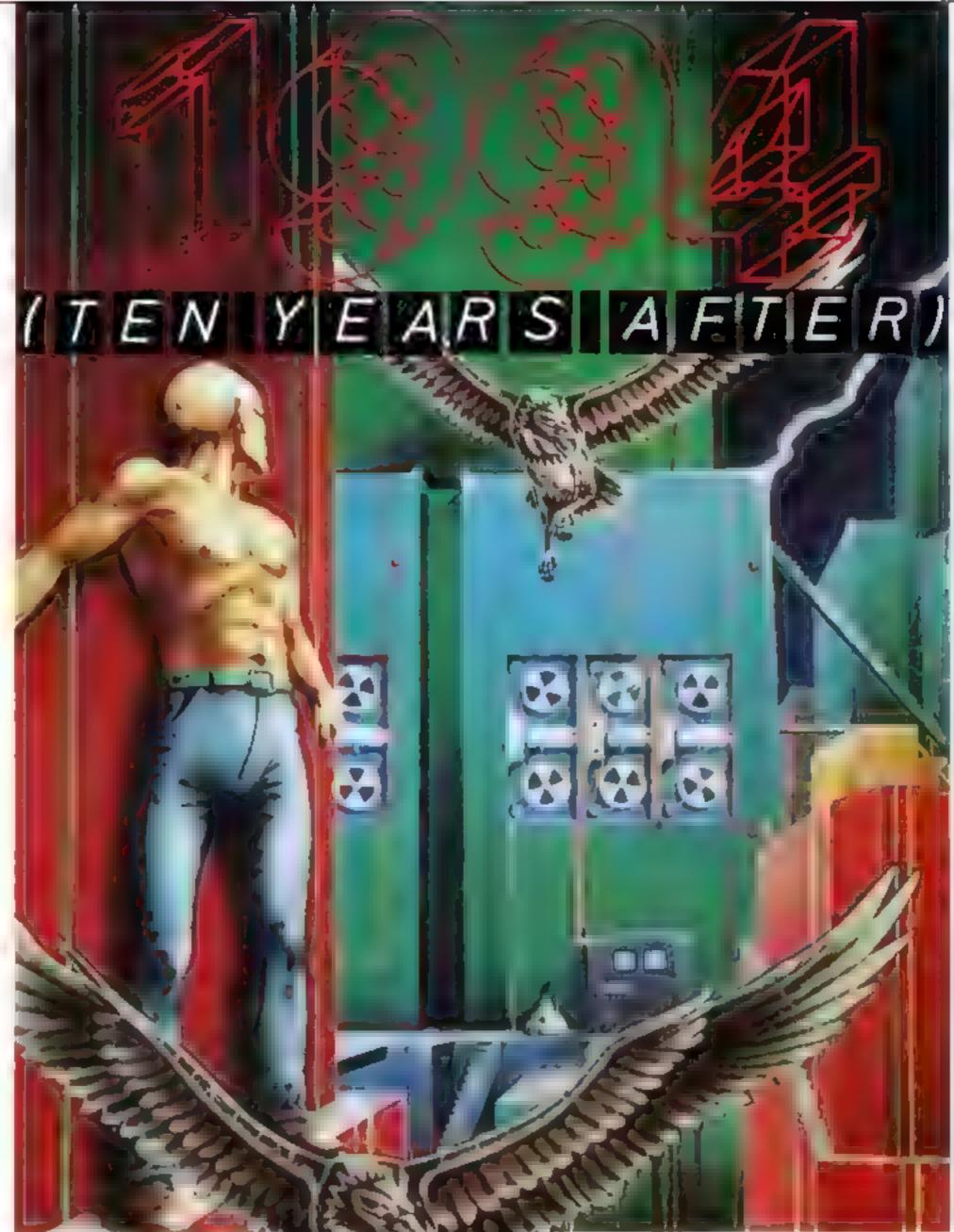
Compiled by PCS Distribution (0254 691211) from a sample of 40 dealers in the U.K. and Northern Ireland. Chart is for sales in the fortnight ended March 9.

Top Ten programs for the Spectrum

To	p Ten program	*45
		Psion (1)
	Chequered Flag	unerrate (2)
	Atic Atac	Quicksilva (6)
2	Ant Attack	Durrell (7)
3	Scuba Diva	Ocean ()
4	Hunchback .	i ummate (4)
5	Lunar Jetman	1
6	A LabortiST	Intelligence (or
- 7	Cyrus-IS-Chess	1
- 8	CAuna-12-0	Shepherd
ç	Hobbit	Richard Shepherd
11	Guner SOV	()

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English Software, Box 43, Manchester M16 3AD

Captain Sticky loves chewing gum. Trouble is it costs money That's where you come in - or should I say go under.

The Captain finances his supply of gum by stealing gold from a seabed mine. As his latest crew member you will joystick yourself down to the mine and send the gold back topside automatically, by attaching a ship's hawser to the find You make your own way back to the ship for a ref.l of air.

No. It isn't as easy as that There is a limited air supply. Harmful sea-creatures luck in the depths. A helicopter occasionally flies overhead dropping depth charges. There are even seabed

missile launchers to caler for Your harpoon gun will be found useful although I found it bit slow on the draw.

The graphics in Captain Sticky are very good indeed. Such is the detail, the sky darkens when clouds obscure the sun above the sea. There are five lives available for the one or two players, and many skill levels to chose from

If areade games are your force you will enjoy Captain Sticky. If not, you could find the game soon becomes repetitive. Needs joystick. T.A.

instructions 75% playability 80% graphics 950% value for money 90%



General knowledge to outer space

Something for everyone in this mixed bag of programs

Centimunch 48K Spectrum

TNT, Meaon House, Lindal, Ulversion, Cumbria

A rather superior worm game. The food is distributed in a 3D maze; the more you est, the longer you become and the harder it gets! Est the random bees and acquire a higher score, but avoid the stinging spider. Consume all the food on one level to gain access to the gate which leads to the next month's garden which is more complex.

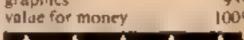
Al. the features we have come to know and love are here. High Score, Hali of Fame, and sound effects, together with a demo-

The graphies are of a super standard, well up to that of the arcade, and once the bug bites, you will be well and truly infected with the enthusiasm

A number of skill levels are available from beginner to daredevo. I have to admit I had to concentrate really hard to reach the third page using the cursor keys. The program doesn't claim to be joystick compatible, but it ought to be for really high SCOTES

Just one point of aggravation' Of the few words to appear on the screen, one is mis-spelled and this really looks bad. Please use a dictionary, programmers! D.M.

Instructions	95%
playability	85%
graphics	950%
value for money	100%



Hyperblast! 32K Atari £9.95

A slick version of that old favourne, Galavians.

The one or two players can choose from three levels of d.fficulty slow, fast and very fast There are 10 screen presentations each with a different swarm of alien beings bent on your desiruction Your spaceship, armed with three missile batteries, resides at the baseline of screen display and is moved left or right by joystick control. Unfortunately there is no repeat fire facility when pressing the stick button.

The instructions tell us that the spaceship's centre missile is fired first, followed by two outer wing missues. I found this happened

only occasionally - mostly the centre missile alone would fire off, it was also possible for my ship to receive a direct hit but not blow up Hyperblast's graphics are agreeable, with the action set against a scrolling starry universe, speckled with colour,

I should point out that this game is a fairly standard version of the invader type, so if something similar hes in your software library you may want to look elsewhere On the other hand, if you enjoy downing aliens by the barrel-load, Hyper blast is for you. Joystick needed

instructions playability graphics value for money

60%7546 850% 80%

Arcturus **48K Spectrum** £6.95

Visions, 1 Selgate Mews, Studland Street, London W6 This game consists of attempting to get four crosses in a row in any plane As the inlay card puts it, you can play man v man, man v computer, or computer v computer. There are plenty of instructions, both on the inlay card and on the screen, but an unfortunate choice of paper and ink makes for hard work reading the screen set. As a preliminary there are over 20 screens of rules and explanations. Once you have got through the main defences. and into the game proper, the first thing you must do is give your name. After that a bewildering array of options are open to you, skill level, seconds

per move, or minutes per game and so on. One of the more useful options is the ability to turn off the sound. If all this sounds as though I am knocking the game I'm not. The game is Tic-Tac-Toe whatever embellishments this particular author has chosen to add.

If you like this sort of game then this is the best version I have seen so far.

B.B 100% instructions 8546 playability 100% graphics 75% value for money

Ouizmaster — Sports and Cames 48K Oric E5.95

R & R. 34 Bowton Rd, Tuffley, Gloucester GL4 01 E.

Quizmaster is a test of both your general knowledge and specialist sports knowledge. You select which subject you prefer at the start and questions are then posed for you, together with 4 possible answers. If you choose correctly your score is increased but if you are wrong then the answer is revealed and you move on to the next question

I reckon there are about 120 questions in each category and the degree of difficulty is such that most members of a family have a chance of getting the right enswer. Of course 4 options

displayed means you might only be guessing — but who knows?

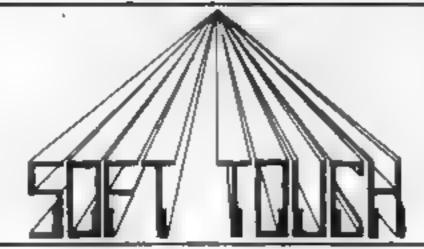
I experienced a few little quirks on loading, but this seems not uncommon with very long BASIC programs such as this.

In any program of this nature there is always a question mark over its lasting value but provided the questions are generated in a random fashion then there are enough here to keep you occupied for some enjoyable hours.

P.S.W.

80% Unstructions 70% playability 70% graphics 75% value for money





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COMMODORE 64 SOFTWARE REVIEWS

Adventure and action for the CBM

From bugs to giants, our reviewers put a selection of the latest games programs through their paces

Hideous Bill and The Gi-gants £7.95

Virgin, 61-63 Portobello Rd, London WII 3DD

A Pacman-type game, but much more entertaining. There are three levels. On the first you dash around the maze stamping on ant eggs persued by giant ants. You can collect three spears within the maze which will defend you for a limited time. If you clear the screen you find yourself on the next level. This time you have no defences but you can collect a lever that opens or closes a trap door When you clear this maze you have to hop behind the trap door yourself to collect a can of

strengthening beans that take you to the third level where you meet the heroine, Greta, who is

This game has been very well designed. The instructions on the card are clear, but you also get a screen of instructions before each level

I enjoyed playing this game The speed was not impossibly fast, yet with only three lives it required some skill to get to the third level. All in all, a well thought out and presented L.C. package

QUE's instructions 80年。 playabinty 7(10% graphics 80% value for money



Banana prama 29.95

Vistons, 1 Selgate Mews, Studland Street, London W6

Have you ever fancied running your own country? Well, here's your chance with the added advantage that if you make a mess of it and end up being overthrown in a revolution, you can just wind back the clock and start all over again. Actually, being overthrown seems to be mevitable in this particular simulation. The challenge is just to see how long you can survive and how much money you can salt away in your Swiss bank account before disaster strikes.

This is a game rather than an authentic simulation; the

scenario doesn't bear much resemblence to reality, and nor do the decisions you are asked to make. Your options at each stage are distinctly limited, and there are no opportunities to change your mind

There are some graphics and rather repetitive sound effects to entiven the proceedings, but I didn't find the game very entertaining. Making selections from a seemingly endless succession of menus, however tastefully decorated thay may be. really doesn't offer much in the way of excitement or mental sumulation

	60%
instructions	50%
playability	50%
oraphics	40%
value for money	1.

Sting 64 £7.95

Outeksilva 13 Palmerston Rd. Southampton SOI ILL

from attack At the first level you control a swarm of bees to loading trouble, which nowadays is very race so hat no wadays repel invading bees that are is very rare so, having reviewed in the incomed in their attacking three hives. When a M. I would not be inclined to play hive gets overtaken you move to the next screen which requires you to defend an individual hive

The same creates some gr interesting graphics displays, but val to my mind falls down on giving the players much opportunity to show their skill when I first played it I was troubled by an

apparent lack of control via the joystick However this is intentional If the Joystick is not moved the defending bees swarm This program is apily named I control by the player As an experiment, I let the many around in a random manner. In don't like it and think it is poor experiment, i let the game play by itself and it scored 374 against practice the effect is loss of by itself and it scored 374 against

As a final pur off I had

L.C.
50%
5000
70% 50%

Armaggeddon £9.95

Visions, 1 Feldgate Mews, Stud. land St, London W6 9JT

There is something very odd about playing board games on a computer it may be useful to have a computer to play against in the absence of a human opponent, but when, as in this case, the computer does not play uself but merely supervises the game, the whole exercise seems rather pointless

This version is quite well presented, with a colourful and clear map of the world to play on, Cursor control is a bit tricky, whether you use the keyboard or a joystick, but otherwise the game is easy enough to play. The biggest sneg, though, is that it is very slow Each attack is accompanied by a flashing

picture of a battlefield, which is quite attractive the first time you see it but becomes very annoving when it appears for the fiftieth

The other snag is the instructions, which seem to presume a good knowledge of the board game on which this is based But if you already have the board game then I really can't imagine you wanting to buy this, and if you don't - well, the original version is both cheaper and better

Instructions M.N playability graphics 50% value for money 5000 60% 300

Booga-Boo (The Flea)

Quicksilva, 13 Palmerston Rd, Southampton SO1 1LL

The instructions that come with the cassete were rather sparse and I did not know what to expect when the game was loaded However, the want during the loading time was well worth it I found this game very addictive and enjoyable.

The setting is a very large cavern containing all sorts of ledges and perches. You, the flea, start off at the bottom and have to jump from one ledge to another to work your way to the top. The cavern is so large that you can only see a portion on the screen but you can scroll left and right to look for further ledges.

While you are jumping around you have to avoid a flying

dragon that persues you. You also have to be careful that you don't jump into, or fall into, insect eating plants

The graphics are brilliant and in this fantasy land the screen is rich in colour Throughout the game a very catchy tune is played, but if you find it distracting you can switch off the music. Altogether a game to be highly recommended, even if it does need joysticks

	70%
nstructions	90%
playability	80%
oraphics	80%
value for money	

DENIS THROUGH THE DRINKING GLASS

FOR 48K SPECTRUM



- 1. Are they long enough?
- 2. What is number 36?
- 3. Who spoiled the photos?
- 4. Is there really such a pub in Plymouth?
- 5. What made Woy dizzy?
- 6. Is he a quarter pounder?
- 7. A hole in one or one in a hole?
- 8. Where did he learn to talk like that?
- 9. Has he gone off his Malvinas?
- 10. Who is it dummy?

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Looking for some good games?

Classic or original, arcade-type or adventure, our reviewers give the once-over to a new batch of games

Pasta Blasta **48K Oric**

Arendia, Freepost, Swansea SA3 AZZ

Fancy a truly outrageous shoot out in an Italian resonurant? If you do make sure you wear your old I shirt because your sauce squirter will be working overtime Robbers are trying to steal your raviou tins and you must stop them, and their Pac People buddies, from running the mdustry.

The game is compatible with the PASE joystick but keyboard control is also quite straightforward Very good use of sound and colour combine to make the effect quite spectacular. There is scope for a wide range of skill levels and the hall of

fame is very nicely done, with many entries possible

Arcadia says this is part of a troopy If the next two live up to this standard then the fun should be maintained at a high pitch.

Apart from what I believe is an original idea Arcadia has put together an addictive program that will appeal to just about every games player. From simple fun to cut - throat competition, Pasta Biasta should I'll your needs, if not your stomach, quite P.S.W. nicely

90 m instructions 85% playability 90% graphics 90* value for money



Waydor 48K Oric £7.50

IMS, 143-145 Uxbridge Rd, London W13 9AV

Another adventure game, but different from most others presently available in that it includes plenty of illustrations. In fact every location, and I have found at least two dozen, is diustrated colourfully using Oric's hi-res display appear instantly whenever you enter a new place, and are representative if not highly

It is set in and around a castle Enough clues are presented to allow you to solve the problems and coilect the treasures required I suspect that a complete solution is probably

not too difficult but since I have not completed it yet I might be deluding myself.

The adventure is written entirely in machine code which provides the fast and memory saving method needed to allow such liberal use of graphics. It also makes it much harder to cheat.

You either love or hate adventures, and a lot of the success of a game depends on the width of its vocabulary, Waydor uses a reasonably large collection of words, but you may have to try quite a few combinations before achieving your aim. This can be frustrating, but persevere -you will be surprised. P.S.W.

instructions playability graphics value for money * * * *

65% 85% 80% 90%

Charlot Race VIC-20 £6.95

Micro-Antics, Littlehome, Haw. thorne La, Codsall, Wolver-

Imagine vourself looking down upon a Ben Hur chariot race If you have never seen the film a doesn't matter - playing this is far more exening if two players decide to play then you play against each other and the computer, otherwise it's just one player against the computer

Racing around a circuit, you control the speed and sideways movement of your chartot, within limits For instance, if you go too slow you invoke the wrath of the crowd and find vourself dodging fireballs! While you are trying to force your opponent off the track the computer is trying

to do the same to you, and usually succeeds One ploy is to race ahead and then slow down, or back into your opponent, but this is not easy to muster Scoring is a wee bit complicated. One of the factors taken into account is the number of laps completed and if you can complete the 20 laps you have indeed had an epic

Graphics movement is amouth, response to the key press quite positive and sound reasonable All in all very playable, and might become addictive

instructions B.B. playability graphics 10000 value for money 90% 900 98%

invaders Oric £5.50

Arcadia, Freepost, Swansea SA3

There's not a lot left to say about the classic space invaders game or a stoll an attractive game and quite fun, so Arcadia has reproduced the old favourite for the Oric

It's simple and fairly onspectacular. There are three types of invaders in five colours and the occasional mystery ship will cruise across the top of your screen As ever, the object is to destroy everything in sight without suffering too much yourself You can hide behind bunkers, and cateful use of these is the key to succes.

No hall of fame is provided and the game rolls on relentlessly

until you are finally wiped out There are no winners here All you can hope for is plenty of

Colour and sound are adequately employed and the tape loaded OK on most occasions. The price is somewhat lower than other One areade games, which is to its advantage, and this could be a good starter for new Oric owners. There are a lot of better games available now but space invaders is an historic piece of programming and every home should have one P.S.W.

instructions playability graphics 8000 value for money 70% 5500 60 m

Brain Pain VIC-20 £5.95

Micro-Antics, Luttehome, Hawthorne La. Codsall, Wolverhampton

To be able to read this review, you will have over many years seen and remembered the words used. Memory forms an important part of reading and this game demonstrates a well used method for stimulating the recoilection process

The game is called Brain Pain, supposedly because the thought generated while playing could cause headaches It is, in effect, a simulation of the old game of Pelmanism or pairs

The screen is divided into 35 squares, using a joystick or the keyboad you move about exposing the designs behind the squares and finding the matched

pairs. Up to five can play at a time - a strong point in favour of the game. The positions of the designs are different for each game.

In addition to the basic game, there is a facility provided with which the user can change the design and colours of the pictures used in the game. This helps to maintain the interest of

If there is a shortcoming in the the game program, it is that there is no very easy level for young players who would find it difficult to memorise the position of 17 pairs

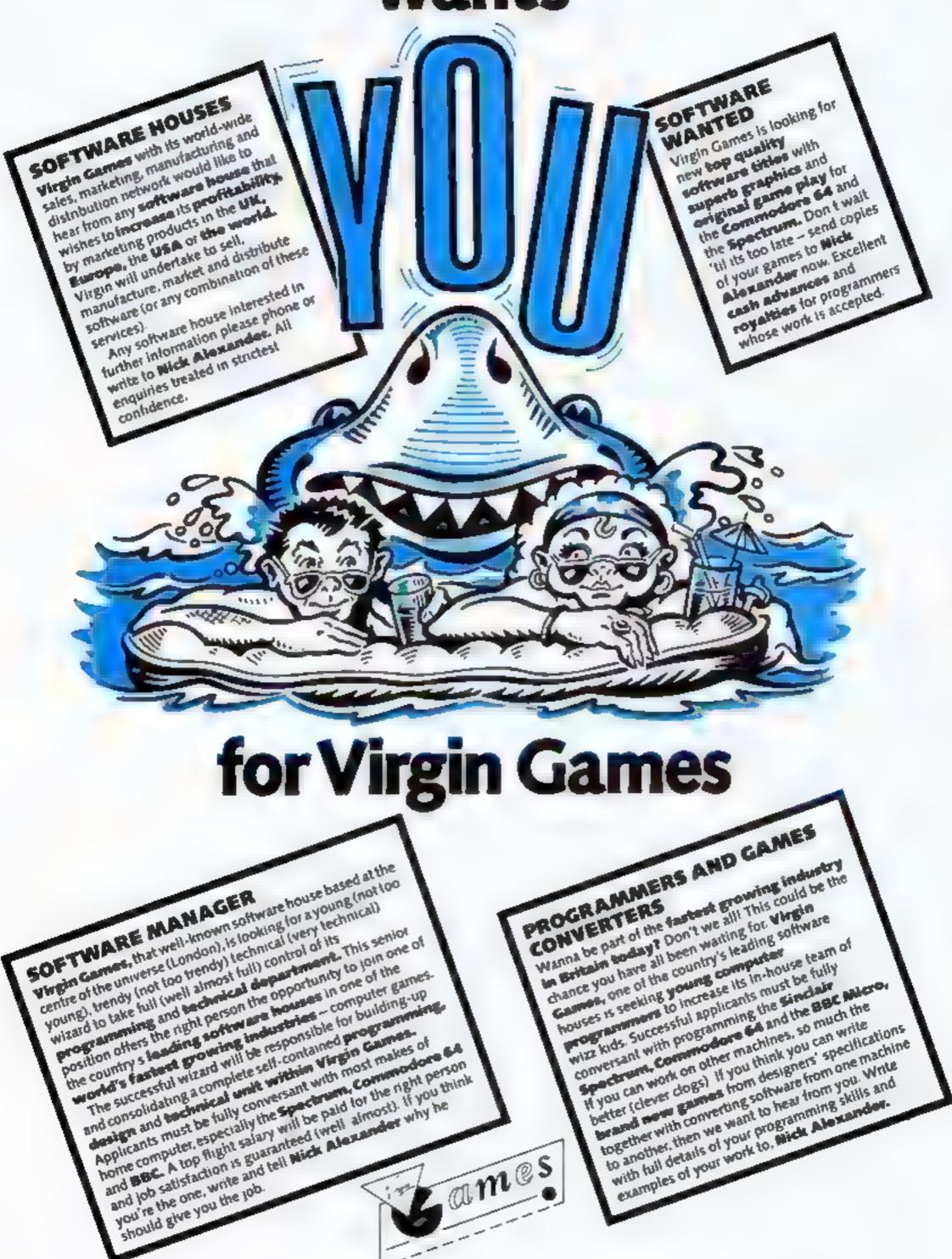
Overall, a sound old favourite which offers good value. M.W.

60% instructions 90% 80% playability graphics value for money

80%

··*

The Laughing Shark wants



Vocabulary VIC-20 +8K, 16K E9.99

Commodore, 675 Ajax Avenue, Slough, Berks.

If during my teaching practice, while training or any time I have been teaching since I had produced visual aids for my classrom of the same standard as these programs I would have failed instantly. The set consists of two tapes, and instruction books and a range of topics. On the first tape the programs cover everyday objects, the parts of the body, types of building etc.

A labelled picture is shown to the child and he or she is asked to look and learn the spellings. After this, one word at a time is removed and the child is asked to re-insert it. A tone tells you if the

spelling is correct. At the end of each group a score is given along with a revision list. The aun is to merease the child's vocabulary. improve spelling and increase confidence in reading

While the idea is good, the overall quality of the program is rather cheap and nasty. The graphics were crude and poorly presented. A competent programmer would have developed high resolution plotting routines to give a wide range of quality graphics. Rather tatty, compared to the material available on other

Part of the Teach and Test Series for ages five to eight. M.W.

Instructions	90%
ease of use	TO COMP
display	BASES.
value for money	SIFE
value for money	30,11

Learning with your computer

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Xnagrams 48K Spectrum

Postern, P.O. Box 2, Andoversford, Cheltenham GL54 5SW

Following prompts, you can work on up to five words at a time, making real words out of jumbled letters. The hidden word is displayed as blue blanks, with the jumbled letters on the right Multiple words display in crossword format. You cursor across the blanks, pressing your choice of letter. Correct scores 30, wrong loses five and there is a high-score display. The three levels are junior school, senior, adult or brighter child. The display is unadorned, with little display . visual reward for success

Sham, essly, I chose one word at tuntor level and failed

miserably with a six letter word (ROCKET), Hastily continuing, I scored instant success with JAM. Racing through several similar minor achievements, I boldly tried three words at once This now becomes pure guesswork as all letters of all words are jumbled together

My interest wanted quickly and I doubt the educational merit. Is a child, at the level of recognising JAM, capable of understanding the anagram idea? The single word has some merit but multiplay, peeding luck and the crossword mind, may be beyond many. Children with word difficulty might be turned off D.C. forever. instructions 90% 50% ease of use 30% 55%



value for money

Nine Currant Buns 48K Spectrum

Five Ways Software, Arrow, 17 21 Conway St. London WiP

An entertaining way for the under sixes to learn the numbers six to nine, practice counting up to nine, and be introduced to addition and subtraction. The program uses a baker in a shop with a box of animated buns and three gingerbread men to teach the numbers and then to test the child. There is plenty of reinforcement of all that is

Addition is taught using an animated plus sign and various

animals showing how many are to be added Then practice in adding occurs, using an overlay A snake replaces the subtraction sign in the demonstration of take away and leads to the

Each activity has been wellplanned, with good use made of the sound and graphies capability of the Spectrum. The child and parent would, obviously, be best employed using an activity thoroughly at one session and not race through them all just because they are loaded foo much at one time would confuse and not educate.

nstructions	4 - 39
ase of use	100%
splay	100%
live for money	100%
	100%

French Oric £12.95

Tansoft, 1/2 Cambridge Techno-Park, Newmarket Rd, Cambridge

If you fancy some French lessons then Tansoft provide an attractive method for you and your micro. A 10-lesson course, each needing about one hour of concentration, is provided in the form of a program and an audio tape. The idea is to run through the lesson first, on which you are tested for each way translations, and then listen to the audio tape for the pronunciations.

By the end you should have accumulated a vocabulary of about 350 words and a grounding in basic grammar This should provide a sound base for extending your knowledge

The method used is the

Gruneberg Linkword Language System - a technique of linking French words to an image for ease of recall. Some of the examples are bizarre but this is quite deliberate, to creale interesting images

It is obviously impossible to assess in a limited period, and it would depend a lot on the commitment of the user. The course should appeal to children and adults equally and could be useful before the holidays

Technically the package functioned well: the audio tape was particularly clear and PS.W. professional 75%

775

instructions ease of use display value for money



Arithmetic 2 VIC-20 +8K, 16K £2.20

Commodore, 675 Ajax Avenue, Slough, Berks

One tape consists of two programs, the first teaching the numbers to 20 by placing a number on the screen. The child, aged five to eight, has to use the keyboard to copy the number. If the number is correct, the machine shows the corresponding number of cars on the screen. The second program tests what has been learned by putting random numbers of objects on the screen for counting. After basic counting the machine deals with counting in twos, threes and fours using rather uninspired graphics.

On the second tape, programs

three and four deal with multiplication and division. The test paris of these programs are in the form of games (Eat the Cake, Catch the Kite). My daughter, who has difficulty with numbers, asked when she would be doing multiplication after playing Catch the Kite - this must be an advantage in any arithmetic programme. The division program has the same (crmat

Overall a useful but umnspired package. Part of the Teach and MW. Test Senes.

Minis mstructions ---case of use 45% display. 75% value for money



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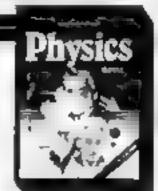
An the programs have been produced by very experienced teachers. They all contain problems to be solved on the major themse of the relevant examination syllebuses. Wherever possible the problems contain. randomised data, so that the programs can be used time and time again with increasing benefit. Most packs also contain sets of manapie choice questions typical of those found in examination papers. Complete with a comprehensive book of REVISION NOTES. Extremely useful as examination day approaches. As packs contain a program of hims on HOW

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TI-994A SOFTWARE REVIEWS

House of Horrors time Stor Strike £5.99

Soud Software, 35 Melville Rd, Bispham, Blackpool FY2 9JF

House of Horrors is an adventure game with graphics To start you must find the key to enter the house. Clues to the key are given on screen and once deciphered you are given an option of five levels of play and a chance to have the instructions displayed if required. Without warning you are beset by problems which must be solved before you can proceed. There is an egotistical gorilla who likes to hear his name, and this is printed on screen for a brief moment after which you must type in the name from memory. The game

proved to be difficult enough at level one so if you get to level five you're a better man than I Gunga Din. This game is excellent fun and a must for all you adventure fanatics.

Star Strike is an arcade style game where you are the pilot of a spaceship defending against alien invaders. The graphics used are excellent and represent the view through a cockpit window at the aliens coming towards you in a good 3D effect. Although the action is limited, the game is well presented with excellent graphics. The whole package adds up to a very good value for money.

D.B.

	onar.
instructions	80%
playability	95%
graphics	95%
value for money	95%

No. of the Control of

Fun, games and utilities for the Texas

Play golf and cards, have adventures and hit the aliens — even design your own graphics with these Texas

Taxi Calf

SofTl, 14 Station Rd, Brough, North Humberside

The game of golf is now available for most micros and the II is no exception, with several versions on the market

Unfortunately, most of the realism is taken out of this program, with non-standard clubs used when it would have been just as easy to use a standard set

Instead of the usual three woods, nine irons and a putter, only 10 clubs are used. These are as follows: seven irons, one driver, one rather old-fashioned brassic and one wedge

The course has nine holes, and any hole can be played at any time. I was surprised to find that there were no lakes, streams or

frees which are almost essential features of a real course

Rather a strange aspect of the game was that the computer chooses a "suitable" club if you land in the rough. This turns out to be extremely annoying, as nine times out of ten you have to play away from the green in order to avoid going into the rough again.

After the ninth hole, your score card and handicap are displayed

This is not the best version of golf I have seen, but it could be greatly improved with just a few minor additions.

J.J.

Instructions	70%
playability	60%
graphics	60%
value for money	85%

value for filoticy

Napoleon £4.95

MarKat, 4 Cloroen Pk, Belfast

A card game, very similar to Whist, in which the player competes against the computer. When the cards have been dealt (the player and the computer take turns), the non-dealer states how many tricks he thinks he can win (As only five cards are dealt, this number can be no higher than five and no less than two.

than two). The dealer may then either pass or make a higher bid. The first card is played by whoever makes the highest bid, and the suit of this card then becomes the trump suit

bollowing suit, if possible, the opponent then plays a card. If the value of this card is higher than that played by the other

contestant, the opponent wins the trick. As in Whist, if a frump is played it wins the trick.

Unlike Whist, there is a scoring system which awards to the players, according to the amount of tricks.

The cards are displayed extremely well on the screen, and the computer's cards face up.

Although the computer knows which cards the player holds, the instructions say it does not use this information to its own advantage.

J.J.

instructions
playability
praphics
value for money
95%
90%

Graphics Creator & Screen Editor £5.95

PiKaDee, 35 Parket St, Preston, Lancs PR2 2AH

Gone are the days when I used to spend many a boring evening scribbing on a grotty piece of over-used graph paper, attempting to design yet another alien for the world's billionth version of Space Invaders. All I have to do now is load Graphics Creator, and after tapping in my requirements all the hexadecimal coding is worked out for me very convenient

As well as Graphics Creator and Screen Ednor there are three other programs containing character sets, but I found these rather hard to load.

Upon execution of the program, an 8 x 8 character grid is dislayed on the screen, together with the letters A to Z adn, underneath them, two rows of undefined characters

To design your own character, all you have to do is tap in the coordinates of the squares you need filling. Characters can be rotated, inverted, stored as one as the user-defined characters, and saved on cassette. Their hex listings can also be shown on the

The screen editor allows you to design a screen using your predefined characters, which is very useful when planning a title screen for a program. A must for all Ti owners.

Instructions 95% asset of use 95% 95%

value for money

Fun pac 2 £6.95

Virgin, 61-63, Portobello Rd, London W11 3DD

A package consisting of three games, one areade style and two text-only adventure games.

The arcade game has the rather topical title of Escape the Mugger, and you are the rather hapless victim who has to escape. The villain is, however, extremely fleet footed and you must exercise a great deal of cunning in order to avoid being another mugging statistic.

Starship Supernova is a text only adventure, where you are the captain of a space salvage ship which happens upon an alsen spaceship heading for a supernova and destruction. The

Carrier Steel. Without Special Special Co.

out you are given visual warnings to the effect that you are nearing the supernova

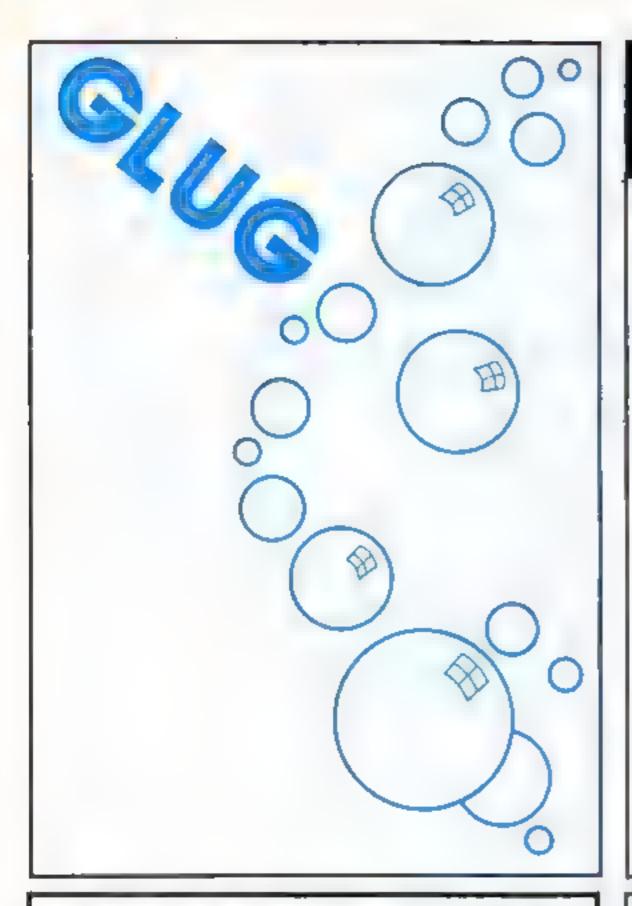
The final game on the tape is also text only, and places you in as a gunfighter in the old wild west

Different factors are given to help you decide on which action to take and your skill will decide whether you clean up the town or end up dead

Three games on this tape are very well presented and I found them entertaining and good fun to play. At the combined price of £6.95, good value for money

instructions 90% 90% 90% 90% 90% 80% value for money

D.B.



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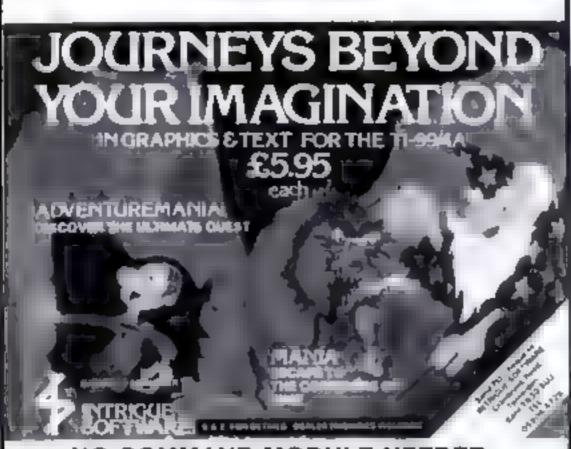
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MANIA

tiscape into ghi he s ande ands of Mana nivelin seaich in he legend di helli mare quest Willy up succeed to the our dors or the

INTRIGUE SOFTWARE Cranbrook Rd., Tenterden, Kent TN30 6UJ

A leading stock sts or direct flom us by return olipost



COMMODORE 64 PROGRAM

Now you too can join in this high speed combat game, using my program for the Commodore 64

The first point to note about the game is that it is for a basic 64, so you won't need Extended Basic, Simons Basic, or any other add-ons.

A POINT and READPOINT command is built into the program, and is designed to use multicolour mode, so you can see the different coloured paths of you and your opponent.

The second interesting feature of the game is that the keyboard can be used for both players at the same time. This is because one of the machine code routines splits the keyboard in two, allowing two people to enter keys at the same time, so you don't need two joysticks to play.

Lightbiker is fast enough five moves per second — to make it fun to play, and has one

extra feature.

When the game is normally set, you have a resolution of 160 by 100 to play on, but this can be adjusted in steps of eight by changing variables XX and YY (e.g. if XX = I resolution will be 152 by 100).

Hints on conversion

If you are not going to write machine code, you must have a high resolution screen with POINT and READ commands, and a way to split the keyboard or read two joysticks. If these essential features are not included in your computer, it will probably not be possible to convert this game

Your program could also be much shorter, e.g. lines 120-220 should be replaced by a graphics

clear screen command

Finally, lines 600-760, incrementing the lightbike position in its direction of motion, should be adjusted to your screen format and resolution

As your lightbakes have to be set randomly within this area, it is best not to let the resolution fall below 48 by 28, otherwise one of the bikes may be placed outside the playing arena

Lightbike for a bout of high speed combat

Two players both use the keyboard in Lightbiker, a fast-moving game for the Commodore 64, by HCW regular David Rees. And there are a few other novel features too



How it works

6-80 set up player variables and speed up the game

100-110 set colours

120-176 clear high resolution screen

180-220 set high resolution colours and display

230-250 set screen memory regis-

260-295 draw edge lines

300-440 main contine

600-760 increment pixel move-

1000-1070 POKES machine code

1100-1520 machine code DATA 2000-2250 end of game plus do you want another go?

3000-3110 display keys and screen size

To use the game, RUN it. There will be a delay as machine code DATA is POKEd in. The keys you will use are then displayed as the high resolution screen is cleared

Then the grid edges are drawn and the game starts in earnest. After it is finished, a point is added to the score of the player who won, and you can play another game.

Note: As usual, Commodore BASIC control characters are explained in REMs in the lines above. These REMs should not be typed in.

Main Variables

X%,Y%,A%,B%,C% position variables for machine code

P.O locations of direction registers

G game number

K.L. machine code routines start positions

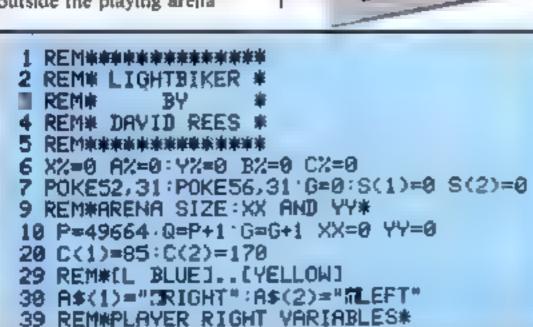
V start of video chip

XX subtracted from grid width X wards

YY subtracted from grid width Y wards

C(1),C(2) players 1,2 colours S(1),S(2) scores of the players X(1),A(1),Y(1),B(1) player position variables for player 1

- 40 X(1)=10+XX/2
- 50 A(1)=0 Y(1)=INT(RND(1)*(12-YY))+12.5
- 60 POKE56325,255:POKE56324,255
- 65 B(1)=0.P0KE49664,1
- 69 REM#PLRYER LEFT VARIABLES*
- 70 X(2)=INT(RND(1)*(20-XX))+18
- 75 A(2)=0:Y(2)=10+YY/2 B(2)=0 POKE49665,3
- 80 K=49152 L=49408
- 85 IFPEEK(52000)=0THENGOSUB1000
- 90 GOSUB3000
- 99 REM*SET UP HIRES SCREEN*
- 100 V=53248
- 110 POKEY+32,2:POKEY+33,6
- 120 FORN=8T015
- 129 REM*..[HOME]
- 130 POKE648,N#4 PRINT"",
- 140 FORM=0T098 PRINT"@@@@@@@@@@", NEXT
- 150 FORM=01033 POKE990+M+N*1024,0 NEXT
- 160 NEXTN



COMMODORE 64 PROGRAM

```
179 POKE648.4
 179 REMACHOMEJ
 180 PRINT"到",
 189 REM#..[BLACK]
 200 FORN=0T09
210 POKE56286+N, 0 POKE2014+N, 126
 220 NEXT
230 POKEV+17, PEEK(Y+17)0R32
240 POKEY+24,31
 250 POKEY+22, PEEK(Y+22) OR16
259 REM*DRAW SIDE LINES*
260 C%≈255
265 FORY=0T024 FORB=0T03
268 XX=XX AX=3 YX=Y BX=B SYSK
270 XX=39-XX AX=0 SYSK
275 NEXTB, Y
280 FORX=0T039 FORA=3T00STEP-1
285 XX=X:AX=A:YX=YY BX=0:SYSK
290 YX=24-YY:BX=3.SYSK
295 NEXTRUX
299 REM#MAIN ROUTINE#
300 FORM=1T02
310 XX=X(N) RX=A(N) YX=Y(N) BX=B(N)
330 CX=C(N):SYSK:IFPEEK(780)=1THEN2000
340 NEXT
400 SYSL:N=1
410 ONPEEK(P)GOSUB600,650,700,750
430 N=2.ONPEEK(Q)GOSUB600,650,700,750
440 6010300
599 REM#INCREMENT IN DIRECTION*
600 B(N)=B(N)-1 IFB(N)>-1THEHRETURN
610 B(N)=3:Y(N)=Y(N)-1:RETURN
650 B(N)=B(N)+1 IFB(N)<4THENRETURN
660 B(N)=0:Y(N)=Y(N)+1-RETURN
700 A(N)=A(N)+1:IFA(N)<4THENRETURN
710 A(N)=0 X(N)=X(N)-1 RETURN
750 A(N)=A(N)+1:IFA(N)>-1THENRETURN
760 A(N)=3:X(N)=X(N)+1:RETURN
999 REM#POKE IN MACHINE CODE#
1000 FORN=0T01
1010 FORM=0T02S5
1020 READA: IFA=-1THEN1050
1030 POKE49152+N*256+M, A
1040 NEXTM
1050 NEXTH
1060 POKE52000,1
1070 RETURN
1100 DATA169,,141,52,3,160,3,177,45,10
1110 DATA10,10,144,4,24,238,52,3
1120 DATA141,53,3,160,10,177,45,168
1130 DATA169,1,192,,240,9,10,24,10,24
1140 DATA136,192,,208,247,133,251,10,24
1150 DATA101,251,24,141,54,3,169,
1160 DATA133,254,160,17,177,45,168
1170 DATA192,,240,17,169,,24,105,64
1180 DATR144,3,24,230,254,230,254,136
1190 DATA192,,208,241,133,253,165,254
1200 DATA24,105,32,24,109,52,3,24
1210 DATA133,254,173,53,3,24,101,253
1220 DATA144,3,24,230,254,133,253
1230 DATA160,24,177,45,10,24,133,2,160,31
1240 DRTA177,45,45,54,3,133,252,169,255
1250 DATA56,237,54,3,24,133,251,164,2
1260 DATA177, 253, 37, 251, 170, 177, 253
1270 DATA45,54,3,201,,240,3,169,1,96
1280 DATA138,24,101,252,24,145,253
1290 DATA200,145,253,169,,96,-1
1400 DATR169,135,141,2,220,32,159,255
1410 DATA165,197,201,64,240,36,201,59
1420 DATA208,5,169,1,24,144,24,201,10
1430 DATA208,5,169,2,24,144,15,201,62
```

```
1440 DATA208,5,169,3,24,144,6,201,9
1450 DATA208,5,169,4,141,,194,169,120
1460 DATA141,2,220,32,159,255,169,255
1470 DATA141,2,220,165,197,201,64,208,1
1480 DATA96,201,48,208,5,169,1,24
1490 DATA144,24,201,53,208,5,169,2
1500 DATA24,144,15,201,49,208,5,169,3
1510 DATA24,144,6,201,54,208,5,169,4
1520 DATA141,1,194,96,-1
1999 REM*END OF GAME*
2000 FORT=0T0999:NEXT
2010 FORT≐0TO9 GETA$ NEXT
2020 S(N)=S(N)+1
2030 POKEV+17, PEEK(V+17)AND223
2040 POKEV+24,21
2050 POKEY+22, PEEK(Y+22)AND239
2058 REM*[CLS][GREEN].[RVS ON]..[GREEN]
2059 REM*.[RVS OFF]
2060 PRINT" MITTHE M"A$(N)" PE PLAYER WON"
2070 PRINT"WELL DONE"
2079 REM*[DWN]
2080 PRINT"XOON GO NUMBER"G
2090 PRINT"THE SCORES ARE: *
2100 PRINTA$(1)" "S(1)
2110 PRINTA$(2)" "S(2)
2129 REM#[GREEN]
2130 PRINT"#"
2200 PRINT"DO YOU WANT ANOTHER GAME (Y/N)?"
2210 GETA$: IFA$="Y"THEN10
2220 IFA$=""THEN2210
2230 IFR$<>"N"THEN2200
2240 POKE56325,68
2250 END
2998 REM#KEY INSTRUCTIONS*
2999 REM*[CLS][L BLUE]..[DWN]
3000 PRINT"TIKEYS M"
3009 REM#[RVS ON]
3010 PRINT" SLEFT PLAYER "
3020 PRINT"2 UPDQ LEFTUW RIGHTON DOWN"
3030 PRINT
3039 REM*[RVS ON]
3040 PRINT" #RIGHT PLAYER:"
3050 PRINT"\ UP# # LEFT# + RIGHT# = DOWN"
3060 PRINT
3070 PRINT"SCREEN SIZE IS:"
3080 PRINT(20-XX)*8;" ACROSS"
3090 PRINT"AND"
3100 PRINT(12.5-YY)*8;" UP."
```



3110 RETURN

How it works 1-35 initialisation of score, graphics, variables

99-239 introduction and instruc-

300-950 character generation 999-1050 game screen display 1100-1250 entrance to dungeon

1253 subroutine (8500-8550) to erase display

1254 subroutine (8400-8440) for random dungeon

1299-1334 routine for room door 1348-1840 monster attack routine

1999-2670 player attacks and adjustment of status scores Check for dead

3024-3420 room contents, and show which characters are dead

3500-3550 check if you've won and if so go to exit routine, otherwise leave room and contabue.

3599-3676 draw exit and show

8299-8350 failure routine 8899-8990 class descriptions 8999-9999 user defined graphics

Is the lure of gold — and the risk of dark caverns where monsters await the unwary -your cup of tea?

in Hermon, short for Heroes and Monsters, you take the role of one of four characters: wizard, warrior, priest or thief.

Any combination of people may play the characters. For example, one person could play all four or two people per character could play.

You will meet up to III different types

of nasties and of find all sorts useful equipment lying around. All you have to do is find the gold and escape unhurr!

For those not familiar with this type of game there is a substantial introduction in the listing

When RUN there will be a short pause while graphics and variables are set up

Details of the characters, or classes, can be obtained by pressing key 3. Enter your class in L mode. Skill level is the number of rooms you must explore before finding the exit.

If the game is SAVEd using the form "program name" LINE I then when LOADed the game will auto-run.

User-defined graphics a to p are used. Capitals in the PRINT statements should be entered in GRAPHICS mode.

So that's the program. Now it's up to you... if you dare.

Page 42 HOME COMPUTING WEEKLY 20 March 1984

Are you brave enough to explore the dark labyrinth where monsters lurk and a treasure chest of gold lies. Only the fittest will survive this devilish adventure, written for the 48K Spectrum by Tim Frost and Simon

Welbourne

scores c1,c2,c3,c4 players' cash scores Ivi level of play a decide whether there is a monster in the room w decide on monster mi monster's status I decide initiatives d damage st,ad,aq,ah status score replacee special damage sp1,sp2,sp3,sp4 player's spells rm room count bus bonuses prov provisions tres treasure pts points he rub out questions n5.a\$.r\$.q\$ players' names t\$,(4,3) classes IS, IS, kS, IS players' classes m\$ (10,8) monsters p\$ name of monster z\$.y\$ spaces

WINDS.

stl.st2.st3.st4 players' status

t1,t2,t3,t4 class status scores



```
1 REM HERDES AND MONETERS
                                                                                                                       B. MEL BOLINNE
        2 MEM = 714 FROST L
         3 THE &L PAPER BY BONDEN BY CLE
         5 PRINT AT .8 91 TELEASE WAIT TEAT 8:75 THERMON HAS LOADED AT 9:111 MITTER TARRE
         & REM HAS NATIALIBATIONSSS
     38 80 9UB 7000
      31 Ch.B.
     32 LET nee"
                                                           "I LET about LET comes LET gemes LET you" . "I LET you
OF ART PROPERTY ART THEFE
     33 1rb at PAPER BY BORDER BY CLE
     35 CET FROM CET brising
       TO RER 400 KTROADA
    182 LET 044 6
   THE LET COURS
   128 PRINT AT 246 FLARE 11 THERDES AND MOMETERSON
   140 PRINT IN . AT 4 41" T FROST & S MEL BOURNE ""
143 PRINT AT A 3 Horose & Fonetory as a 16" 7 11" fantusy role-playing game.
  145 PRINT AT 9.4; You play the part of an "
146 PR NT AT 18 3; intropid adventurer You"
147 PRINT AT 11 3; must sup one the lebyranth
   $48 PRINT AT 12 2; f nd treasure + 55 monsters
     AT PRINT AT 13,74 and seson as y + not the only?
    58 PRINT AT 14 ST MAY OUT
 152 PRINT INC 3(47 16,3) Etep into the world of your"
153 PRINT INC 3.AT 17 9, IMMINATION "
55 PRINT AT 7,2] Press any key
168 IF IMEERS" THEN 00 TO 168
  163 REEP 25.14
     45 CL 8
  167 HER MANONSTER DESCRIPTIONS
     72 LET will D
  IND PRINT AT 2 21 THONSTERS 1. OVER 147 2 7
  181 PRINT AT 1 2; AFE White Moctures' Int-2
  183 PA NT AT 4 ... MARKIBLEOUS RAS BISST, Inte3
183 PA NT AT 5 2/ 'GOR 'N Sea ... US y Inte3
184 PA NT AT A 7: FORCED Seast Dog ... Fire-1
185 PH NT AT 7: P PASTACE Cargo Strong, Inte-2
  ING PRINT AT B. 2) ODAEL angle Bees number Intellier PRINT AT 9 2; ONE ugsy housened Intelli
  188 PR NT AT | 0 2; 5: Exeromificar are off;
189 PR NT AT | 2; 2000 Excontrolled dead; intel
  198 PA NT AT 1. . 1 & ANTITALS Brong Posts 19. PA NT AT 4 7 nr - nielligence Scorett 5
    141 PRINT BT 15 4; 11-POOR 5-00091
  198 PCEP 25 18
  285 HER COLOUPPENT LISTER
   21 ,11 as- T
  LT PRINT FIRST GREGING SERVICES SERVICES (GREGING)

LT PRINT BI ... LDU PRENT COURS SERVICES (GREGING)

220 PRINT INC 4 AT 3 A SECRETAR VE Appelle T

221 PRINT INC 4 AT 4.2 R makes read for appelle T

221 PRINT INC 7 AT 7 T C MANITES a group stem

24 PRINT INC 5 AT 9 L D ALTAR PRINTS SERVICES

24 PRINT INC 5 AT 9 L D ALTAR PRINTS SERVICES

25 PRINT INC 5 AT 11 L L DED ROOM for absorbe

15 PRINT INC 5 AT 11 L L DED ROOM for absorbe

16 PRINT NO 54AT 12 L PRINT PRINTS PROVING THE
     THE OF MY CON BUSY IS . I TRIBBURY CHEST BOLD
     to DO if the hight all 4. Prove any buy
       F PANN BY P INSTANT FROM BO FD 257
     A TIME THE PERSON AND DESIGNATION OF
    100 At 75 LAS
    sealer Take to Aller in the Star
   THE PRINT OF ST CHARACTER DEMERSTRON & DVEN IN PRINT INF 21 _
  THE REST OF STATE OF STREET
  48 PRINT AT 1 | Here to an energy of a g syer
  THE PRINT NO SERT WILL ACTORDED MARK SHIPS FOR NY AT 2 I The MARK IN DIT IN DIE YOU THE PRINT IN DIE IN DIE YOU THE PRINT IN DIE TO THE PRINT IN D
   THE PH Nº AT 4 c STATUS IN A MEASURE OF OUR
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          sounds and phonesis with hors provingma.comb etc.
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     THE PAINTERS OF THE PARTY OF TH
  TOS LES NOT
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U.S. SCENE

Critics cool on CBM 264

I suppose you might have heard by now that Jack Tramiel, company founder and president of Commodore, has resigned from the company. Commodore is still reeling under the news. Within four weeks of Tramiel's departure, four other high level Commdore executives also resigned.

Although the two newest Commodore machines, the 264 and 364, were slated for an April delivery date, it seems apparent that the high level shake-up may cause this date to be postponed. Some industry observers feel that without high-level management well versed in the computer industry, Commodore may be left without a clear cut marketing plan for the rest of this vear

Despite this, it is unlikely that the company will feel any permanent setbacks in the marketplace. After all, the Commodore 64, with its under-\$200 price tag here, has all but eliminated competition in the low-end home computer market. Since the 64 is selling so well, they can readily afford to hold back the market introduction of the two new machines.

Another prime reason for Commodore to delay the new computers is the criticism and cool reception given the machines by some industry analysts and certain key members of the computing press when it was learned that neither machine was software compatible with the 64.

Such a move looks bad to this member of the computing press; we'll see how much of a factor it is to Commodore in the

nexi months or so.

New Tech Times update. Awhile back I wrote about the new television show being aired on our Public Broadcasting Network which allows viewers to use their computers and modems to correspond with the producers of the show.

The host, Nicholas Johnson, author of How To Talk Back To Your TV Set, is now on the receiving end of his idea. Using The Source, an American computer bulletin board available by subscription, viewers can contact the show via The New Tech

Times Online service.

The service provides previews of coming shows, addresses and phone numbers for companies whose products were shown. Johnson's own syndicated columns, books available at discount, information on obtaining transcriptions of the show, other special offers, and, above all, the chance for viewers to suggest ideas for future shows. Now that's talkin' back...

Is it about time? Who knows? According to the prestigious Stanford Research Institute (SRI), the average market growth of personal computers is expected to slow down and stabilize to a rate of about 5.4 per cent annually within the next two years. SRI has spent about \$400,000 on this research project.

Part of the results predict that within two years more than half of all personal computers sold will be replacements for older machines. The firm also predicts that businesses will not be buying so many personal computers when stand-alone word processors, terminals, and workstations can be tied into

integrated systems.

This last prediction seems odd to me. Will things have gone full circle in two more years? I thought one of the reasons that personal units were purchased by business people was that that eliminated the need to depend on one central computer timesharing facility.

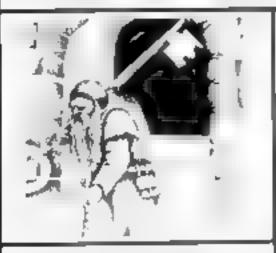
Oh, well. People love to re-invent the wheel don't they? I'll see you in two years and let you know what happened.

I'll also see you next week and let you know what is happening.

Bud Izen Fairfield, California

TI-99/4AT DUBLER TI-99/4

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16K SPECTRUM

"Superdraw"

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MEGASAVE 76, WESTBOURNE TERRACE LONDON W2

You're a spy, a wizard or an insect...

Which role do you want to play in your next computer game? Our reviewers have acted out the parts already

1994 (ten years after) **48K Spectrum** £ 6.95

Visions, 1 Feigate Mews, Studland St. London W6

Your task is to get to the inner comuter room by collecting keys to each successive room leading to it. Of course there are obstacles in the way, and many baddies to thwart your attempts. By far the worst was a big bird, presumably an eagle. Not that it hurts you, far from it, but the darned thing picks you up and curries you back to the start of the screen. Your only means of ascent are two lifts moving in opposite directions. If you don't get everything just right then you

are clobbered and, if that isn't enough, your strength rapidly decreases as you contact various "thingies" Curiously though, when the bird carries you back your strength returns. After two hours I have not yet managed to get to the second level, but I'll manage it next time - I've bought a shot gun. That bird is not going to get the better of me. Although graphics are nothing to write home about, movement is quite smooth, and makes for a playable game

100% instructions 100% playability 90% graphics 90% value for money



Fruity Freddy 32K BBC

SoftSpot, 29 South Cres, Prittlewell, Southend, Essex SS2 6TB

This new and adventurous software house is going to make a big mark in BBC software. Not only does it produce arcade quality games but they are usually original in concept. This game has all the ingredients of its previous offerings: superb colour, fast - almost supersonic action - and a good humourous story line too.

You control Freddy who has decided to steal all fruit from the next door garden. He has to wait for the flowers to develop fruit first In the meantime he is assailed by killer bees, crazy

caterpillars, even birds with killer droppings

If he treads on a plant before fruit have developed the owner comes out to give him a thrashing. There's more if the fruit become overripe it's seeds are dispersed and new plants start to grow making the emptying of the garden more difficult. There is an insect spray, but I found it wasn't anywhere near full enough for my needs. Only those very sumble survive to cat the sweets

in short, everything you could want from a new game, including that rare addictive element. D.C.

instructions 100% playability 100% graphics 100% value for money

Millypede Spectrum £5.00

CCI, Units 2, 3 and 4, Shire Hill Industrial Estate, Saffron Walden, Essex CB11 3AQ

A competent version of the arcade favourite, Centipede Your garden is under danger of pest invasion in the form of a centipede who squirms towards the bottom of the screen, changing direction when it comes across a mushroom Your task, as a can of insect repellent, is to destroy this bothersome bug before he slomps you

The bugs have various allies too, nemely the spider and a rather docile snail who drifts nonchalently across the screen Beware of the spider this atrocious arachind moves fast

Unlike the areade version, the mushrooms disappear as soon as they are hit, making the game simpler and less compulsive Also missing is the cute little flea. Both of these features are in other Spectrum versions of the

The centipede is quite well programmed, if you split his body the two halves dive off in different directions, making the same much harder Good use of sound too - as the game progresses insects scream at a higher pitch

Nevertheless, better versions of Centipede exist, I suggest you try the others before buying this

instructions playability Braphics value for money

70% 60% 55% 50%

Project Volcano 48K Spectrum £6.95

Mission, 1st Floor, 49 Grange Rd. Darlington, Co Durham DL1 59B

A very enjoyable, well presented espionage adventure game You, an ace spy, have to penetrate a command centre
Situated in a voicano.

presumably extinct, somewhere in Eastern Europe and put their computer out of action for four weeks by destroying the master program,

Right from the moment you open your folder containing mission objectives, briefing notes and a map of part of the complex It is obvious that the game has been well thought out It supports a small but adequate

vocabulary with the more common commands able to be abbrevialed, for instance "Take IDcard" becomes "T ID" Your commands and the responses are screened along with very good hne drawings of your locations The action moves along at a

brisk pace and many problems face you, most of which will require the use of objects you should have picked up along the way. As usual with adventures, you are strongly advised to keep a careful note of where you have

A splendid game Very suitable for a novice adventurer

instructions playability graphics

Magic Meanles Spectrum 25.95

CDS, 10 Westfield, C1, Tickhill, Doncaster DN11 9LA

Have you ever wanted to make a fortune by turning lead into gold? In Magic Meanies you control a wizard collecting gold

to transmute. You guide him around the screen collecting all the lead while avoiding the magic meantes who follow his path. He is armed only with five crystal balls but there are also four apples which you can use to block or squash your pursuers With each new screen an extra meanic of a different type is added.

There is an option of nine speeds, from the pedestrian to the impossible. You can also stence the rendition of the Can-Can which, for no apparent

reason, accompanies the action

The graphics are over-small and the pin man appears to be hat on his face when you move up or down An annoying feature is the method of entering names into the high score table. You must inhoriously use left and right to move through the alphabet to select each letter

Movement keys are well chosen and there is a Kempston joystick option.

Magic Meanies is an Interesting game let down by poor graphics.

S.E. 70% instructions 65% playability 48% graphics 60⁴e value for money

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COMPUTER	At a

HCWman, my six-level maze game, runs on any Atari with one joystick.

As you would expect, you guide HCWman with your joystick around a maze full of dots.

You must try to clear the maze of its dots without being gobbled up by one of the ghosts which are in pursuit of you throughout the game.

Each time you get caught by a ghost you lose one of your three lives.

The dots are worth 10 points each, and note that the ghosts can eat them too!

Positioned in each corner of the maze are power pills. If you cat one of these you gain threefold:

Hints on conversion

This program is in GRAPHICS 1 + 16, a text mode which divides the screen into 20 by 20. The characters are redefined in lines 14000-14540.

STICK (0) reads the joystick Lines 12000 to 12060 draw the maze using DATA statements PLOT places a single character at position x,y, on the screen and DRAWTO draws to position x,y, from the last position plotted

POSITION puts the cursor at the specified place on the screen LOCATE positions the cursor at the specified place on the screen and reads the contents

How it works

under it

I have put in a lot of REMarks to guide you through the program

- 25 energy units will be added. to the Power time indicator (PT at the bottom of the screen
- The ghosts will freeze
- You can eat the ghosts for a tasty 400 points each until the PT indicator reaches zero

The power pills are also worth 25 points each.

Each time you clear the maze



ATARI PROGRAM

REM ADDITIONAL PROPERTY OF THE
II REIT 4 HOWAN 4
2 REM · BY ·
3 REM # VICTOR THORN #
4 REM P
5 REM #
6 REM **************
7 REM
15 BOSUB 9500:POSITION 16,9:7 "HOMMAN":POSITION 14,21:7
"PLEASE WAIT"
1
28 DIM CHM#(14),1(6),Y(6),W(18),M0(219),68(28);FOR T=)
TO 10:N(T)=0:NEXT T:Ns=" ":Ns(2:9)=" ":Ns 2)=Ns
38 GOSUB 14880: GOTU 8875
48 GOSUB 11000:005UB 12000:1:1-3:50-6:PT-0:POSITION 0,23
17 #6; "SCORE="1POSITION 13,23:7 #6; "PT=";PT
100 COLOR 134:PLOT 1,1:PLOT 1,21:PLOT 18,1:PLOT 18,21
110 POSITION 7,9:7 06: "HOMMAN": COLOR 37: PLOT 8,10: DRAWT
0 7+L1, 18
112 IF B=196 THEN POSITION 7,12:2 06: "READY!":FOR 1=1 1
O 600:NEXT 1:COLOR 35:PLOT 7,12:DRAWTO 12,12
115 A=18:8=18:CH=300:GP=B:GOSDB (0010:COLOR 0:FOR T=1 T
0 3:PLOT X(T),Y(T):NEXT T
128 COLOR 164:FOR T=1 TO L-1:PLOT X(T),Y(T):NEXT T:T=1
290 ST-STICK(0):1F ST-15 THEN BOTO CH

Variables CNS holds charcters to be redefined CHB starting address of custom character set CHD starting address of each character held in CHNS x(),y() horizontal, vertical positions of three ghosts LI lives remaining SC score PT power, time remaining A.B. HCWman's horszontal, vertical position ST holds STICK(0) value Z character LOCATE variable D dots left — there are 196 when the maze is full used in FOR .NFXT loops as abbreviation, J=PEEK (764), which checks for pressed key etc T used in FOR .NEXT loops, and also with X(T) and Y(T) where T equals 1, 2, or 3 L determines how many ghosts are in maze GP, SP IF GP = SP (speed) THFN move ghosts CM value of a line number If last position of joystick was right then CM would be the line number which moves HCWman right

of its dots the skill level will increase by one.

NS string array holds name of

G\$ input name

Top 10 scorers

N() holds Top 10 scores

There are six skill levels, each selectable from the keyboard at the beginning of each game. I is easiest, 6 is hardest. These are the differences:

şkdî)	No. of	٠	ghost
level	ghosts		speed
1			slow
2	2		slow
3	3		slow
4.7	l		fast
5	2		fast
6	3		fast

If your score is among the 10 best you can enter your name up to 20 letters - in the Top 10

When entering this program I would advise you to leave out all the REMs as it runs considerably faster without

Gobble the dots and awold the ahosts...

ATARI PROGRAM

```
206 IF ST<>7 THEN 220
208 LOCATE A+1,8,2:IF Z=30 THEN SOTO CM
209 GO70 212
218 LOCATE A+1, B, Z: IF Z=30 THEN 300
212 1F Z=134 THEN GOSLB 4000
214 IF PT'8 THEN GOSUB 7800
215 CM=218:GOSUB 6080:COLOR 0:PLOT A, B: A=A+1
216 GOTO 300
228: IF ST()11 THEN 248
228 LOCATE A-1.8.2:1F 7=30 THEN GOTO CH
229 SOTO 232
230 LOCATE A-1, B, Z: IF Z=38 THEN 388
232 IF 2=134 THEN 50SUB 4000
234 IF PT +B THEN GOSUB 7000
235 CM-230:609UB 6000:COLOR 0:PLOT A, B: A*A-1
236 GOTO 380
248 IF ST<>14 THEN 26B
248 LOCATE A,B-1, Zr IF Z=30 THEN GOTO CH
249 GOTD 252
250 LOCATE A, B-1, 2: IF 2:38 THEN 308
252 IF Z=134 THEN BOSUB 4000
254 IF PTOR THEN GOSUB 7000
255 CM=258:GOSUB 4800:COLOR 0:PLUT A.8:8-8-1
256 GOTO 380
260 IF BT<>13 THEN BOTO CM
268 LOCATE A.B+1, Z: IF 2=38 THEN BOYO CH
269 GOTO 272
278 LDCATE A,B+1,Z:IF Z=38 THEN 388
272 IF Z=134 THEN BOSUB 4980
274 IF P7>0 THEN GOSUB 7000
275 CM=278:GOSUB 6888:COLOR 0:PLD1 A,8:8+8+1
300 COLOR 37:PLOT A.B:POSITION 6,23:7 #6:SC
102 IF DC1 THEN PT=0:POSITION 16,23:7 #6;PT;" P:GOTO 70
384 (F PT=0 THEN 310
385 PT-PT-1:POSITION 16,23:7 #6:PT;" ": IF PT-8 THEN BOS
JB 10000
386 FOR 1-15 TO 255 STEP 28:50UND 0,1,10,15:NEXT I:SOUN
D 0,0,0,0,0:6010 200
310 GP=GP+1:1F GP=BP THEN 400
320 FOR I=1 TO L=18:NEXT 1:5070 200
480 GP-BilF ACEX(T) THEN 450
485 LOCATE X(T)+1,Y(T),2:1F 2-38 THEN 458
418 IF 2+35 THEN D-D-1
415 IF Z=37 THEN 8010
418 LOCATE X (T)+2, Y (T) , Z: IF Z+37 THEN COLOR #: PLOT X (T)
.Y(T):X(T)=X(T)+1:00T0 8000
428 COLOR BIPLOT X(T),Y(T)
430 X(T)=X(T)+1:COLOR 164:PLOT X(T),V(T)
458 T=T+1:1F T=L THEN T=1:0010 478
466 GOTO 466
478 IF ASHX (T) THEN 528
475 LOCATE X (T1-1, Y (T), Z1 1F Z=38 THEN 528
408 IF Z=35 THEN D=D-1
495 IF 2=37 THEN BOLD
488 LOCATE X(T)-2,Y(T),Z: IF Z=37 THEN COLOR B:PLOT X(T)
.Y(T):X(T)=X(T)-1:8010 8900
498 COLOR B:PLOT X(T),Y(T)
520 X (T)=X(T) 1:COLOR (64:PLOT X(T),Y(T)
528 THT+1: IF THE THEN THE GOTO 548
530 GOTO 470
548 (F BC=Y(T) THEN 598
545 LDCATE X(T), Y(T)+1, Z: IF Z=38 THEN 598
550 IF 1=35 THEN D=0-1
555 IF Z=37 THEN B010
558 LOCATE X (7), Y (T)+2, Z: IF Z=37 THEN COLOR 6: PLOT X (T)
,Y(T):Y(T)=Y(T)+L:80T0 6000
SAM COLOR M: PLDT X(T), Y(T)
5/8 Y(T)=Y(T)+1:COLOR 164:PLDT X(T),Y(T)
590 T=T+1: (F T=L THEN T=1:0010 610
600 GOTO 540
610 IF B>=Y(T) THEN 660
615 LOCATE X(T), Y(T)-1, 2:1F 2=38 THEN 668
620 IF 7=35 THEN D=D-1
625 [F Z=37 THEN 8618
628 LOCATE X(T),Y(T)-2,Z:IF Z=37 THEN COLOR B:PLOT X(T)
 Y(T):Y(T)=Y(T)-1:50T0 8000
638 COLOR 0:PLOT X(T),Y(T)
640 Y(T)=Y(T) 11COLOR 164:PLOT X(T),Y(T)
668 T=T+1:1F T=L THEN T=1:GOTO 200
678 GOTO 618
 700 FOR T=1 TO 5:POKE 709,159:FOR I=1 TO 60:MEXT 1:POKE
 789,128:FOR 1=1 TO 68:NEXT 1:NEXT T:POME 789,122
710 COLOR 0:FOR T=1 TO 21:PLDT 1,T:DRAWTO 18,T:NEXT T:C
DLOR 30:PLOT 1,10:DRAWTO 18,10:PLDT 1,12:DRAWTO 18,12
720 COLOR 35:PLOT 1,11:DRAWTO 18,11:POSITION 6,6:7 96;*
BIGHEAD'"
 738 FOR T=1 TO 16:COLOR 164:PLOT T,11:COLOR 37:PLOT T+2
 ,11:FOR I=1 TO 48:NEXT 1:COLOR 8:PLOT T,11:PLOT T+2,11
 740 NEXT T: GOSUB 11000: 605UB 12000: L=L+1: IF L>4 THEN L=
 2:SP=SP-L:IF SP=B THEN SP=1:L=4
 758 GOTO 199
 4000 PT=PT+25:POSITION 16,23:7 #6;PT:50=SC+50:FOR 1=5 T
 D 255 STEP 10:SOUND 8,1,10,15:NEXT 1:SOUND 6,6,8,8:RETU
AN
```

```
6888 IF Z=35 THEN SC=SC+18: D=D-1: SOUND 8,12,12,15: FOR 1
-1 TO 4: NEXT 1: SOUND 0,0,0,8
6001 RETURN
7000 IF Z<>164 THEN RETURN
7001 SC=SC+400:FOR I=255 TO 7 STEP -8:50UND 0,1,0,15:50
LIND 1,1,10,15:NEXT I:SDUND 0,0,0,6:SOUND 1,0,0,6:RETURN
7500 COLOR B:FOR I=1 TO L-1:PLOT X(1),Y(1):NEXT 1:RETUR
8000 COLOR 164:PLOT X(T),Y(T):FOR I=1 TO 50:NEXT I
0010 60500 7500: COLOR 30: PLOT 7+LT, 10
8828 FOR T=39 TO 47 STEP 8.3:COLOR T:PLOT A,8:FOR 1-5 T
O 18:SOUND 8,T+1,18,15:NEXT I:NEXT T
9021 FOR T=255 TO $ STEP -14:50UND 8,T,18,15:MEXT T:50U
ND 8,8,8,8:COLOR 8:PLOT A,8
8025 LI=LI-1: IF LI-0 THEN POME 77,0:GOTO 115
8818 GOSUB 9500: POSITION 14,0:7 "HOWMAN": POSITION 6,2:7
*PROGRAMMED BY VICTOR THORN*:POSITION 11,5
8835 7 "HIGH SCORE TABLE": POSITION 11,6:? "-
  --":GOSUB 8500:POSITION 11,19:7 "YOUR SCORE:";SC
8046 I=1+1:IF SC:N(1) THEN 9000
8858 IF 1<18 THEN 8848
BB6B RESTORE 0078:FOR T=1 TO 32:READ NT:SOUND 8,NT,10,1
SIFOR I=1 TO 13:NEXT J:NEXT T
B078 DATA 243,217,204,182,162,204,162,0,175,217,173,0,1
82,238,182,0,243,217,264,182,162,264,162,121,136,162,28
B072 DATA 162,136,136,1
8875 T-8: POSTTION 5,21:7 "CHOOSE SHILL LEVEL (KEYS 1-6)
"IPOSITION 7,22:? "1-EASIEST III 4-HARDEST" IPONE 764,25
9898 T=T+17SOUND 0.7,18,15:50UND 1.T.8,15:POLE 7:2,7:1F
T-255 THEN T-B
8885 1-PEE: (764):SP-27:IF 1-31 THEN L-2:8010 8120
8898 IF 1-30 THEN L-3:50TO 8120
8895 IF 1-26 THEN L-4:00TO B128
8188 SP-1: IF 1-24 THEN L-2: GOTO 8120
8185 IF 1-29 THEN L-3180TO B128
8118 IF T-27 THEN L-4:GOTO 8128
8115 GOTO BAGB
8128 GRAPHICS 17: POKE 77,8: POKE 788,255: POKE 789,122: PD
RE 718,45:PORE 711,15:PORE 756,CHB/2561PORE 764,255
8170 SOUND 0,0,2,0:SOUND 1,0,0,0:GOTO 40
9500 FOR I-1 TO 9:POSITION 6.7+1:7 7:". ":N(1):POSITION
15,7+1:7 N#CI+28,1+28+19):NEXT 1:1=8
8518 POSTTION 5,17:2 "10, "(N/18):FOSTTION 15,17:2 N#(2)
88.219): RETURN
9888 FOR T=9 TO I STEP -1:N(T+1)=N(T):G#=N#(T+28,T+28+)
9):NB(T+29+29,T+29+39)=G#;NEXT T:PDSITION 2,20
9818 7 "ENTER YOUR NAME FOR HI-SCORE TABLE": POSITION 6.
21:INFUT GE
9028 FOR T=1 TO 2:POSITION 0,2017 CHR#(156):NEXT T
                                                    "INS
9830 N(I)=SC:NO(I=20,I+20+19)="
((*28,1*28+19)=0*:609UB 8588:6010 8868
9500 GRAPHICS BIPDLE 82,01POKE 709,14:POKE 710,01POKE 7
12,56: POFE 752,1: RETURN
19000 COLOR 0:FUR I=1 TO L-1:PLOT X(1),Y(1):NEXT I
10010 FOR I=1 TO 3:X(I)=[0:NEXT 1:Y(I)=3:Y(2)=7:Y(3)+12
JAKE TURN
11000 COLOR 35:FOR T=1 TO 21:PLOT 1,T:DRAWTO 18,T:NEXT
T: D=196: RETURN
12000 TRAP 12004: Z=0: RESTORE 12006: COLOR 30: FOR T=1 TO
43:READ X,Y:Z=Z+X+Y:PLOT X,Y:READ X,Y:DRAWTO X,Y:Z=Z+K+
12002 MERT THIF 7=1013 THEN TRAP 480001 Z=0:RETURN
12004 7 *ERROR-CHECK LINES 12000 TO 12060*:END
12886 DATA 8.8.19.8.19.8.19.2.19.22.8.22.8.27.8.27.8.2.2.
7,2,12,2,17,2,9,1,10,1,9,2,10,2,6,4,17,4,2,4,2,11,4,4
12010 DATA 4,9,5,6,7,6,12,6,14,6,15,4,15,9,17,4,17,11,7
, 11, 4, 11, 15, 11, 14 11, 9 5, 19, 5, 9, 6, 10, 6, 6, 0, 1°, 0, 6, 9, °,
12020 DATA 6,10,13,10,6,11,13,11
12838 DATA 2,13,4,13,6,13,17,13,15,13,17,13,9,14,18,14,
9,15,10,15,2,15,5,15,14,15,17,15,5,16,5,17,14,17,14,16
12040 DATA 7,15,7,17,8,17,12,17,12,15,12,16,2,17,2,20,5
,17,7,20,4,19,4,20,16,17,16,20,17,17,17,20,15,20,15,19
12060 DATA 6,19,13,19,6,20,13,20
14000 2-0:TRAP 14050:CHM*=">0:X&*() 0+._-/":CHB=(PEEK110)
6)-8:=256:FOR I=8 TO 51::POPE CHB+1.PEEK(57344+I):NEXT
14010 RESTORE 14500:FOR I=1 TO LEN(CHR#):CHD=CHB+(ASC(C
HM48 ($3) -523+0
14848 FOR THE TO 7: READ A: Z=Z+A: POKE CHO+T, A: NEXT T: NEX
T 1:1F Z-11415 THEN TRAP 40000:RETURN
14856 7 "ERROR-CHECK LINES 14888 TO 14548": END
14500 DATA 255,129,129,129,129,129,129,255,0,0,0,24,24,
0,0,0,24,60,126,219,255,255,255,170
14518 PATA 60,126,219,255,255,219,102,60,0,24,60,126,32
6,68,24,8
14528 DATA 36,102,231,231,255,255,126,60,102,102,231,23
1,253,255,126,60,0,129,195,231,255,255,126,60,0,0,0,231
14538 DATA 255,255,126,68,8,8,8,8,255,255,126,68,8,8,8,
6,24,255,126,68,8,8,8,8,24,24,126,68,8,8,8,8,24,24,24,24,6
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14540 DATA 84,8,61,132,169,68,17,81

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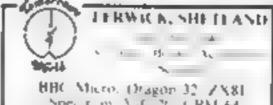
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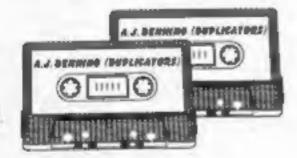
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